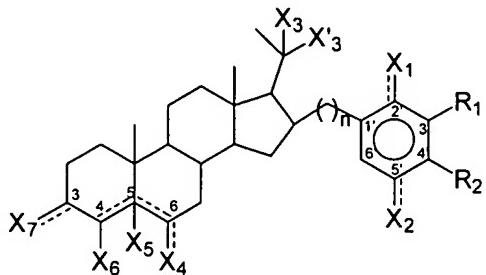


AMENDMENTS TO THE CLAIMS

1. (Currently amended) A compound having comprising the structural formula I, stereoisomers, tautomers, racemics, prodrugs, metabolites thereof, or a pharmaceutically acceptable salt and/or solvate thereof,



formula I

wherein X<sub>1</sub>, X<sub>2</sub>, R<sub>1</sub> and R<sub>2</sub> are independently selected from the group comprising consisting of oxo, hydrogen, hydroxyl, oxyalkyl, alkyl, alkenyl, alkynyl, alkyloxy, alkyloxyalkyl, alkylthioalkyl, alkoxycarbonyl, alkylthiocarbonyl, alkanoyl, cycloalkylalkyl, cycloalkylcarbonyl, cycloalkylalkanoyl, cycloalkylthiocarbonyl, cycloalkylalkoxycarbonyl, cycloalkylalkoxythiocarbonyl, cycloalkylthioalkyl, alkylcarbonyloxyalkyl, cycloalkylcarbonyloxyalkyl, silyloxyalkyl, aralkyl, arylalkenyl, arylcarbonyl, aryloxycarbonyl, arylthiocarbonyl, aralkoxycarbonyl, arylalkylthiocarbonyl, aryloxyalkyl, arylthioalkyl, haloalkyl, hydroxyalkyl, aralkanoyl, aroyl, aryloxycarbonylalkyl, aryloxyalkanoyl, carboxyl, alkenylcarbonyl, alkynylcarbonyl, Het<sup>1</sup>, Het<sup>1</sup>alkyl, Het<sup>1</sup>oxyalkyl, Het<sup>1</sup>aryl, Het<sup>1</sup>aralkyl, Het<sup>1</sup>cycloalkyl, Het<sup>1</sup>alkoxycarbonyl, Het<sup>1</sup>alkylthiocarbonyl, Het<sup>1</sup>oxycarbonyl, Het<sup>1</sup>thiocarbonyl, Het<sup>1</sup>alkanoyl, Het<sup>1</sup>aralkanoyl, Het<sup>1</sup>aryloxyalkyl, Het<sup>1</sup>alkyloxyalkyl, Het<sup>1</sup>arylthioalkyl, Het<sup>1</sup>aryloxycarbonyl, Het<sup>1</sup>aralkoxycarbonyl, Het<sup>1</sup>aroyl, Het<sup>1</sup>oxyalkylcarbonyl, Het<sup>1</sup>alkyloxyalkylcarbonyl, Het<sup>1</sup>aryloxyalkylcarbonyl, Het<sup>1</sup>carbonyloxyalkyl, Het<sup>1</sup>alkylcarbonyloxyalkyl, Het<sup>1</sup>aralkylcarbonyloxyalkyl, Het<sup>2</sup>alkyl, Het<sup>2</sup>oxyalkyl, Het<sup>2</sup>alkyloxyalkyl, Het<sup>2</sup>aralkyl, Het<sup>2</sup>carbonyl, Het<sup>2</sup>oxycarbonyl, Het<sup>2</sup>thiocarbonyl, Het<sup>2</sup>alkanoyl, Het<sup>2</sup>alkylthiocarbonyl, Het<sup>2</sup>alkoxycarbonyl, Het<sup>2</sup>aralkanoyl, Het<sup>2</sup>aralkoxycarbonyl, Het<sup>2</sup>aryloxycarbonyl, Het<sup>2</sup>aroyl, Het<sup>2</sup>aryloxyalkyl, Het<sup>2</sup>arylthioalkyl, Het<sup>2</sup>oxyalkylcarbonyl, Het<sup>2</sup>alkyloxyalkylcarbonyl, Het<sup>2</sup>aryloxyalkylcarbonyl, Het<sup>2</sup>carbonyloxyalkyl.

Het<sup>2</sup>alkylcarbonyloxyalkyl, Het<sup>2</sup>aralkylcarbonyloxyalkyl, cyano, CR<sup>3</sup>=NR<sup>4</sup>, CR<sup>3</sup>=N(OR<sup>4</sup>), aminocarbonyl, aminoalkanoyl, aminoalkyl, optionally substituted by one or more substituents independently selected from the group comprisingconsisting of alkyl, aralkyl, aryl, Het<sup>1</sup>, Het<sup>2</sup>, cycloalkyl, alkyloxy, alkyloxycarbonyl, carboxyl, aminocarbonyl, mono- or di(alkyl)aminocarbonyl, aminosulfonyl, alkylS(=O)<sub>t</sub>, hydroxy, cyano, halogen or amino optionally mono- or disubstituted wherein the substituents are independently selected from the group comprisingconsisting of alkyl, aryl, aralkyl, aryloxy, arylamino, arylthio, aryloxyalkyl, arylaminoalkyl, aralkoxy, alkylthio, alkoxy, aryloxyalkoxy, aylaminealkoxyarylaminoalkoxy, aralkylamino, aryloxyalkylamino, arylaminoalkylamino, arylthioalkoxy, arylthioalkylamino, aralkylthio, aryloxyalkylthio, arylaminoalkylthio, arylthioalkylthio, alkylamino, cycloalkyl, cycloalkylalkyl, Het<sup>1</sup>, Het<sup>2</sup>, Het<sup>1</sup>alkyl, Het<sup>2</sup>alkyl, Het<sup>1</sup>amino, Het<sup>2</sup>amino, Het<sup>1</sup>alkylamino, Het<sup>2</sup>alkylamino, Het<sup>1</sup>thio, Het<sup>2</sup>thio, Het<sup>1</sup>alkylthio, Het<sup>2</sup>alkylthio, Het<sup>1</sup>oxy and Het<sup>2</sup>oxy, OR<sup>3</sup>, SR<sup>3</sup>, SO<sub>2</sub>NR<sup>3</sup>R<sup>4</sup>, SO<sub>2</sub>N(OH)R<sup>3</sup>, CN, CR<sup>3</sup>=NR<sup>4</sup>, S(O)R<sup>3</sup>, SO<sub>2</sub>R<sup>3</sup>, CR<sup>3</sup>=N(OR<sup>4</sup>), N<sub>3</sub>, NO<sub>2</sub>, NR<sup>3</sup>R<sup>4</sup>, N(OH)R<sup>3</sup>, C(O)R<sup>3</sup>, C(S)R<sup>3</sup>, CO<sub>2</sub>R<sup>3</sup>, C(O)SR<sup>3</sup>, C(O)NR<sup>3</sup>R<sup>4</sup>, C(S)NR<sup>3</sup>R<sup>4</sup>, C(O)N(OH)R<sup>4</sup>, C(S)N(OH)R<sup>3</sup>, NR<sup>3</sup>C(O)R<sup>4</sup>, NR<sup>3</sup>C(S)R<sup>4</sup>, N(OH)C(O)R<sup>4</sup>, N(OH)C(S)R<sup>3</sup>, NR<sup>3</sup>CO<sub>2</sub>R<sup>4</sup>, NR<sup>3</sup>C(O)NR<sup>4</sup>R<sup>5</sup>, and NR<sup>3</sup>C(S)NR<sup>4</sup>R<sup>5</sup>, N(OH)CO<sub>2</sub>R<sup>3</sup>, NR<sup>3</sup>C(O)SR<sup>4</sup>, N(OH)C(O)NR<sup>3</sup>R<sup>4</sup>, N(OH)C(S)NR<sup>3</sup>R<sup>4</sup>, NR<sup>3</sup>C(O)N(OH)R<sup>4</sup>, NR<sup>3</sup>C(S)N(OH)R<sup>4</sup>, NR<sup>3</sup>SO<sub>2</sub>R<sup>4</sup>, NHSO<sub>2</sub>NR<sup>3</sup>R<sup>4</sup>, NR<sup>3</sup>SO<sub>2</sub>NHR<sup>4</sup>, P(O)(OR<sup>3</sup>)(OR<sup>4</sup>), wherein t is an integer between 1 and 2 and R<sup>3</sup>, R<sup>4</sup> and R<sup>5</sup> are each independently selected from the group comprisingconsisting of hydrogen, hydroxyl, alkyl, alkenyl, alkynyl, aminoalkyl, aminoaryl, alkylcarbonylamino, arylcarbonylamino alkylthiocarbonylamino and arylthiocarbonylamino;

wherein X<sub>3</sub> participates together with X<sub>3'</sub> to in an oxo functional group, or wherein X<sub>3</sub> and X<sub>3'</sub> are independently selected from the group comprisingconsisting of hydrogen, hydroxyl, sulfur, oxyalkyl, oxycarbonyl, alkyl, Het<sup>1</sup>alkyl, alkyloxycarbonyl, alkenyl, alkynyl, aminoalkyl, aminoacyl, alkylcarbonylamino, alkylthiocarbonylamino, Het<sup>1</sup>, glycosyl, thio derivatives thereof, carboxy derivatives thereof, amino derivatives thereof, amido derivatives thereof, hydroxyl-protected derivatives thereof, optionally substituted by one or more substituents independently selected from the group comprisingconsisting of alkyl, aralkyl, aryl, Het<sup>1</sup>, Het<sup>2</sup>, cycloalkyl, alkyloxy,

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alkyloxycarbonyl, carboxyl, aminocarbonyl; mono- or di(alkyl)aminocarbonyl, aminosulfonyl, alkylS(=O)<sub>t</sub>, hydroxy, cyano, halogen or amino optionally mono- or disubstituted wherein the substituents are independently selected from the group comprising consisting of alkyl, aryl, aralkyl, aryloxy, arylamino, arylthio, aryloxyalkyl, arylaminoalkyl, aralkoxy, alkylthio, alkoxy, aryloxyalkoxy, aylaminealkoxyarylaminoalkoxy, aralkylamino, aryloxyalkylamino, arylaminoalkylamino, arylthioalkoxy, arylthioalkylamino, aralkylthio, aryloxyalkylthio, arylaminoalkylthio, arylthioalkylthio, alkylamino, cycloalkyl and cycloalkylalkyl;

wherein X<sub>4</sub> and X<sub>7</sub> are independently selected from the group comprising consisting of hydrogen, oxygen, halogen, oxo, carbonyl, thiocarbonyl, hydroxyl, alkyl, aryl, Het<sup>1</sup>, Het<sup>1</sup>alkyl, Het<sup>1</sup>aryl, alkenyl, alkynyl, hydroxyalkyl, hydroxycarbonyl, hydroxycarbonylalkyl, hydroxycarbonylaryl, hydroxycarbonyloxyalkyl, glycosyl, thio derivatives thereof, amino derivatives thereof, carboxy derivatives thereof, amido derivatives thereof, hydroxyl-protected derivatives thereof, optionally substituted by one or more substituents independently selected from the group comprising consisting of alkyl, aralkyl, aryl, Het<sup>1</sup>, Het<sup>2</sup>, cycloalkyl, alkyloxy, alkyloxycarbonyl, carboxyl, aminocarbonyl, mono- or di(alkyl)aminocarbonyl, aminosulfonyl, alkylS(=O)<sub>t</sub>, hydroxy, cyano, halogen or amino optionally mono- or disubstituted wherein the substituents are independently selected from the group comprising consisting of alkyl, aryl, aralkyl, aryloxy, arylamino, arylthio, aryloxyalkyl, arylaminoalkyl, aralkoxy, alkylthio, alkoxy, aryloxyalkoxy, aylaminealkoxyarylaminoalkoxy, aralkylamino, aryloxyalkylamino, arylaminoalkylamino, arylthioalkoxy, arylthioalkylamino, aralkylthio, aryloxyalkylthio, arylaminoalkylthio, arylthioalkylthio, alkylamino, cycloalkyl and cycloalkylalkyl;

wherein at least one of X<sub>3</sub>, X'<sub>3</sub>, X<sub>4</sub> and X<sub>7</sub> is a glycosyl moiety; or a deoxy derivative thereof, a carboxy derivative thereof, a hydroxy protected derivative thereof, an amino derivative thereof, an amido derivatives thereof, a thio derivative thereof, optionally substituted by one or more substituents,

wherein  $X_5$  participates ~~to~~in a double bond between the carbon atoms in position 4 and 5 or between carbon atoms in position 5 and 6, and  $X_6$  is selected from the group ~~comprising~~consisting of hydrogen, hydroxyl and hydroxyalkyl, or

wherein  $X_5$  and  $X_6$  are independently selected from the group ~~comprising~~consisting of halogen, hydrogen, hydroxyl, hydroxyalkyl, aminoalkyl, aminoaryl, optionally substituted by one or more substituents independently selected from the group ~~comprising~~consisting of alkyl, aralkyl, aryl, Het<sup>1</sup>, Het<sup>2</sup>, cycloalkyl, alkyloxy, alkyloxycarbonyl, carboxyl, aminocarbonyl, and

wherein n is an integer between 0 and 10.

2. (Currently amended) A ~~The~~ compound according to claim 1, stereoisomers, tautomers, racemics, prodrugs, metabolites thereof, or a pharmaceutically acceptable salt and/or solvate thereof,

wherein  $X_1$ ,  $X_2$ ,  $R_1$  and  $R_2$  are independently selected from the group ~~comprising~~consisting of oxo, hydrogen, hydroxyl, oxyalkyl, alkyl, alkenyl, alkynyl, alkyloxy, alkyloxyalkyl, alkylthioalkyl, alkoxy carbonyl, alkylthiocarbonyl, alkanoyl, cycloalkylalkyl, cycloalkylcarbonyl, cycloalkylalkanoyl, cycloalkylthiocarbonyl, cycloalkylalkoxycarbonyl, cycloalkylalkoxythiocarbonyl, cycloalkylthioalkyl, alkylcarbonyloxyalkyl, cycloalkylcarbonyloxyalkyl, silyloxyalkyl, aralkyl, arylalkenyl, arylcarbonyl, aryloxycarbonyl, arylthiocarbonyl, aralkoxycarbonyl, arylalkylthiocarbonyl, aryloxyalkyl, arylthioalkyl, haloalkyl, hydroxyalkyl, aralkanoyl, aroyl, aryloxycarbonylalkyl, aryloxyalkanoyl, carboxyl, alkenylcarbonyl, alkynylcarbonyl, Het<sup>1</sup>, Het<sup>1</sup>alkyl, Het<sup>1</sup>oxyalkyl, Het<sup>1</sup>aryl, Het<sup>1</sup>aralkyl, Het<sup>1</sup>cycloalkyl, Het<sup>1</sup>alkoxycarbonyl, Het<sup>1</sup>alkylthiocarbonyl, Het<sup>1</sup>oxycarbonyl, Het<sup>1</sup>thiocarbonyl, Het<sup>1</sup>alkanoyl, Het<sup>1</sup>aralkanoyl, Het<sup>1</sup>aryloxyalkyl, Het<sup>1</sup>alkyloxyalkyl, Het<sup>1</sup>arylthioalkyl, Het<sup>1</sup>aryloxycarbonyl, Het<sup>1</sup>aralkoxycarbonyl, Het<sup>1</sup>aroyl, Het<sup>1</sup>oxyalkylcarbonyl, Het<sup>1</sup>alkyloxyalkylcarbonyl, Het<sup>1</sup>aryloxyalkylcarbonyl, Het<sup>1</sup>carbonyloxyalkyl, Het<sup>1</sup>alkylcarbonyloxyalkyl, Het<sup>1</sup>aralkylcarbonyloxyalkyl, Het<sup>2</sup>alkyl, Het<sup>2</sup>oxyalkyl, Het<sup>2</sup>alkyloxyalkyl, Het<sup>2</sup>aralkyl, Het<sup>2</sup>carbonyl, Het<sup>2</sup>oxycarbonyl, Het<sup>2</sup>thiocarbonyl, Het<sup>2</sup>alkanoyl, Het<sup>2</sup>alkylthiocarbonyl, Het<sup>2</sup>alkoxycarbonyl, Het<sup>2</sup>aralkanoyl, Het<sup>2</sup>aralkoxycarbonyl, Het<sup>2</sup>aryloxycarbonyl,

Het<sup>2</sup>aryl, Het<sup>2</sup>aryloxyalkyl, Het<sup>2</sup>arylthioalkyl, Het<sup>2</sup>oxyalkylcarbonyl,  
Het<sup>2</sup>alkyloxyalkylcarbonyl, Het<sup>2</sup>aryloxyalkylcarbonyl, Het<sup>2</sup>carbonyloxyalkyl,  
Het<sup>2</sup>alkylcarbonyloxyalkyl, Het<sup>2</sup>aralkylcarbonyloxyalkyl, cyano, CR<sup>3</sup>=NR<sup>4</sup>, CR<sup>3</sup>=N(OR<sup>4</sup>),  
aminocarbonyl, aminoalkanoyl, aminoalkyl, optionally substituted by one or more  
substituents independently selected from the group comprisingconsisting of alkyl,  
aralkyl, aryl, Het<sup>1</sup>, Het<sup>2</sup>, cycloalkyl, alkyloxy, alkyloxycarbonyl, carboxyl, aminocarbonyl,  
mono- or di(alkyl)aminocarbonyl, aminosulfonyl, alkylS(=O)<sub>t</sub>, hydroxy, cyano, halogen or  
amino optionally mono- or disubstituted wherein the substituents are independently  
selected from the group comprisingconsisting of alkyl, aryl, aralkyl, aryloxy, arylamino,  
arylthio, aryloxyalkyl, arylaminoalkyl, aralkoxy, alkylthio, alkoxy, aryloxyalkoxy,  
aylamoalkoxyarylaminoalkoxy, aralkylamino, aryloxyalkylamino, arylaminoalkylamino,  
arylthioalkoxy, arylthioalkylamino, aralkylthio, aryloxyalkylthio, arylaminoalkylthio,  
arylthioalkylthio, alkylamino, cycloalkyl, cycloalkylalkyl, Het<sup>1</sup>, Het<sup>2</sup>, Het<sup>1</sup>alkyl, Het<sup>2</sup>alkyl,  
Het<sup>1</sup>amino, Het<sup>2</sup>amino, Het<sup>1</sup>alkylamino, Het<sup>2</sup>alkylamino, Het<sup>1</sup>thio, Het<sup>2</sup>thio, Het<sup>1</sup>alkylthio,  
Het<sup>2</sup>alkylthio, Het<sup>1</sup>oxy and Het<sup>2</sup>oxy, OR<sup>3</sup>, SR<sup>3</sup>, SO<sub>2</sub>NR<sup>3</sup>R<sup>4</sup>, SO<sub>2</sub>N(OH)R<sup>3</sup>, CN, CR<sup>3</sup>=NR<sup>4</sup>,  
S(O)R<sup>3</sup>, SO<sub>2</sub>R<sup>3</sup>, CR<sup>3</sup>=N(OR<sup>4</sup>), N<sub>3</sub>, NO<sub>2</sub>, NR<sup>3</sup>R<sup>4</sup>, N(OH)R<sup>3</sup>, C(O)R<sup>3</sup>, C(S)R<sup>3</sup>, CO<sub>2</sub>R<sup>3</sup>,  
C(O)SR<sup>3</sup>, C(O)NR<sup>3</sup>R<sup>4</sup>, C(S)NR<sup>3</sup>R<sup>4</sup>, C(O)N(OH)R<sup>4</sup>, C(S)N(OH)R<sup>3</sup>, NR<sup>3</sup>C(O)R<sup>4</sup>,  
NR<sup>3</sup>C(S)R<sup>4</sup>, N(OH)C(O)R<sup>4</sup>, N(OH)C(S)R<sup>3</sup>, NR<sup>3</sup>CO<sub>2</sub>R<sup>4</sup>, NR<sup>3</sup>C(O)NR<sup>4</sup>R<sup>5</sup>, and  
NR<sup>3</sup>C(S)NR<sup>4</sup>R<sup>5</sup>, N(OH)CO<sub>2</sub>R<sup>3</sup>, NR<sup>3</sup>C(O)SR<sup>4</sup>, N(OH)C(O)NR<sup>3</sup>R<sup>4</sup>, N(OH)C(S)NR<sup>3</sup>R<sup>4</sup>,  
NR<sup>3</sup>C(O)N(OH)R<sup>4</sup>, NR<sup>3</sup>C(S)N(OH)R<sup>4</sup>, NR<sup>3</sup>SO<sub>2</sub>R<sup>4</sup>, NHSO<sub>2</sub>NR<sup>3</sup>R<sup>4</sup>, NR<sup>3</sup>SO<sub>2</sub>NHR<sup>4</sup>,  
P(O)(OR<sup>3</sup>)(OR<sup>4</sup>), wherein t is an integer between 1 and 2 and R<sup>3</sup>, R<sup>4</sup> and R<sup>5</sup> are each  
independently selected from the group comprisingconsisting of hydrogen, hydroxyl,  
alkyl, alkenyl, alkynyl, aminoalkyl, aminoaryl, alkylcarbonylamino, arylcarbonylamino  
alkylthiocarbonylamino and arylthiocarbonylamino;

wherein X<sub>3</sub> participates together with X'<sub>3</sub> ~~to~~<sub>in</sub> an oxo functional group, or wherein  
X<sub>3</sub> and X'<sub>3</sub> are independently selected from the group comprisingconsisting of  
hydrogen, hydroxyl, sulfur, oxyalkyl, oxycarbonyl, alkyl, Het<sup>1</sup>alkyl, alkyloxycarbonyl,  
alkenyl, alkynyl, aminoalkyl, aminoacyl, alkylcarbonylamino, alkylthiocarbonylamino,  
Het<sup>1</sup>, glucosyl, fructosyl, galactosyl, mannosyl, ribosyl, ribulosyl, xylulosyl, erythrosyl,  
erythrulosyl, rhamnosyl, threosyl, sorbosyl, psicosyl, tagatosyl, fucosyl, arabinosyl,

xylofuranosyl, lyxosyl, talosyl, psicosyl, idosyl, gulosyl, altrosyl, allosyl, mannoheptulosyl, sedoheptulosyl, abequosyl, isomaltosyl, kojibiosyl, laminaribiosyl, nigerosyl, primeverosyl, rutinosyl, tyvelosyl, maltosyl, lactosyl, sucrosyl, cellobiosyl, trehalosyl, gentiobiosyl, melibiosyl, turanosyl, sophorosyl, isosucrosyl, raffinosyl, palatinosyl, lactulosyl, gentianosyl, 3-mannobiosyl, 6-mannobiosyl, 3-galactobiosyl, 4-galactobiosyl, maltotriosyl, maltotetraosyl, isomaltotriosyl, maltopentaosyl, maltohexaosyl, maltoheptaosyl, sicosyl, panosyl, isopanosyl, inosyl, N-acetylgalactosaminyl, mannotriosyl, globotriosyl, erlosyl, neotrehalosyl, chitobiosyl, chitobiosemannosyl, glucosaminyl, N-acetyl-glucosaminyl, octylglucopyranosyl, octyribofuranosyl, cyclohexylglucopyranosyl, cyclohexylxylofuranosyl, benzylglucopyranosyl, benzylarabinofuranosyl, N-acetyl-lactosaminyl, acosaminyl, amicetosyl, amylosyl, apiosyl, arcanosyl, ascarylosyl, bacillosaminyl, boivinosyl, cellotriosyl, chacotriosyl, chalcosyl, cladinosyl, colitosyl, cymarosyl, daunosaminyl, desosaminyl, D-glycero-L-gulo-heptosyl, diginosyl, digitalosyl, digitoxosyl, evalosyl, evernitrosyl, forosaminyl, fucosaminyl, garosaminyl, hamamelosyl, isolevoglucosenonyl, kanosaminyl, kansosaminyl, lactosaminyl, lactosediaminyl, fucitolyl, maltulosyl, mannosaminyl, melezitosyl, mycaminosyl, mycarosyl, mycinosyl, mycosaminyl, noviosyl, oleandrosyl, paratosyl, perosaminyl, planteosyl, pneumosaminyl, pururosaminyl, quinovosaminyl, quinovosyl, rhamnitolyl, rhamnosaminyl, rhodinosyl, rhodosaminyl, sarmentosyl, solatriosyl, stachyosyl, streptosyl, umbelliferosyl, trehalosaminyl, 1,6-anhydro-D-glucopyranosyl, 1-hydroxy- $\alpha$ -D-allopyranosyl, 2,3:5,6-di-O-isopropylidene-D-mannofuranosyl, 2-amino-2-deoxy-D-galactitolyl, 2-deoxyribosyl, 2-deoxyglucosyl, 5-amino-5-deoxy-D-glucopyranosyl, 6-deoxy-D-galactitolyl, 2-amino-2-deoxy glucosyl, 2-acetamido-2-deoxy-glucosyl, 2-amino-2-deoxy galactosyl, 2-acetamido-2-deoxy-galactosyl, 2-amino-2-deoxy mannosyl, 2-acetamido-2-deoxy mannosyl, 2-acetamido-2-deoxy-4-O- $\beta$ -D-galactosyl-D-glucosyl, 2-amino-2-deoxy-4-O- $\beta$ -D-galactosyl-D-glucosyl, 6'-N-acetylglucosaminyllectosyl, 2-acetamido-2-deoxy-3-O- $\alpha$ -L-fucosyl-D-glucosyl, 6-O(2-acetamido-2-deoxy- $\beta$ -D-glucosyl)-D-galactosyl, 2-acetamido-2-deoxy-3-O- $\beta$ -D-galactosyl-D-glucosyl, 3-fucosyl-D-lactosyl, 3-fucosyl-2-acetamido-2-deoxy-4-O- $\beta$ -D-galactosyl-D-glucosyl, L or D isomers thereof,  $\alpha$  or  $\beta$  form thereof, pyranuronic or

furanuronic form thereof, pyranose or furanose form thereof, combination thereof, deoxy derivatives thereof, hydroxyl-protected acetate or benzoyl derivatives thereof, amino derivatives thereof, amido derivatives thereof, thio derivatives thereof, di-, tri-, oligo- and polysaccharide thereof optionally substituted by one or more substituents independently selected from the group comprisingconsisting of alkyl, aralkyl, aryl, Het<sup>1</sup>, Het<sup>2</sup>, cycloalkyl, alkyloxy, alkyloxycarbonyl, carboxyl, aminocarbonyl, mono- or di(alkyl)aminocarbonyl, aminosulfonyl, alkylS(=O)t, hydroxy, cyano, halogen or amino optionally mono- or disubstituted wherein the substituents are independently selected from the group comprisingconsisting of alkyl, aryl, aralkyl, aryloxy, arylamino, arylthio, aryloxyalkyl, arylaminoalkyl, aralkoxy, alkylthio, alkoxy, aryloxyalkoxy, arylaminealkoxyarylaminoalkoxy, aralkylamino, aryloxyalkylamino, arylaminoalkylamino, arylthioalkoxy, arylthioalkylamino, aralkylthio, aryloxyalkylthio, arylaminoalkylthio, arylthioalkylthio, alkylamino, cycloalkyl and cycloalkylalkyl;

wherein X<sub>4</sub> and X<sub>7</sub> are independently selected from the group comprisingconsisting of hydrogen, oxygen, halogen, oxo, carbonyl, thiocarbonyl, hydroxyl, alkyl, aryl, Het<sup>1</sup>, Het<sup>1</sup>alkyl, Het<sup>1</sup>aryl, alkenyl, alkynyl, hydroxyalkyl, hydroxycarbonyl, hydroxycarbonylalkyl, hydroxycarbonylaryl, hydroxycarbonyloxyalkyl, glucosyl, fructosyl, galactosyl, mannosyl, ribosyl, ribulosyl, xylulosyl, erythrosyl, erythrulosyl, rhamnosyl, threosyl, sorbosyl, psicosyl, tagatosyl, fucosyl, arabinosyl, xylofuranosyl, lyxosyl, talosyl, psicosyl, idosyl, gulosyl, altrosyl, allosyl, mannoheptulosyl, sedoheptulosyl, abequosyl, isomaltosyl, kojibiosyl, laminaribiosyl, nigerosyl, primeverosyl, rutinosyl, tyvelosyl, maltosyl, lactosyl, sucrosyl, cellobiosyl, trehalosyl, gentiobiosyl, melibiosyl, turanosyl, sophorosyl, isosucrosyl, raffinosyl, palatinosyl, lactulosyl, gentianosyl, 3-mannobiosyl, 6-mannobiosyl, 3-galactobiosyl, 4-galactobiosyl, maltotriosyl, maltotetraosyl, isomaltotriosyl, maltopentaosyl, maltohexaosyl, maltoheptaosyl, sicosyl, panosyl, isopanosyl, inosyl, N-acetylgalactosaminyl, mannotriosyl, globotriosyl, erlosyl, neotrehalosyl, chitobiosyl, chitobiosemannosyl, glucosaminyl, N-acetyl-glucosaminyl, octylglucopyranosyl, octyribosyl, cyclohexylglucopyranosyl, cyclohexylxylofuranosyl, benzylglucopyranosyl, benzylarabinofuranosyl, N-acetyl-lactosaminyl, acosaminyl,

amicetosyl, amylosyl, apiosyl, arcanosyl, ascarylosyl, bacillosaminyl, boivinosyl, cellotriosyl, chacotriosyl, chalcosyl, cladinosyl, colitosyl, cymarosyl, daunosaminyl, desosaminyl, D-glycero-L-gulo-heptosyl, diginosyl, digitalosyl, digitoxosyl, evalosyl, evernitrosyl, forosaminyl, fucosaminyl, garosaminyl, hamamelosyl, isolevoglucosenonyl, kanosaminyl, kansosaminyl, lactosaminyl, lactosidaminy, fucitolyl, maltulosyl, mannosaminyl, melezitosyl, mycaminosyl, mycarosyl, mycinosyl, mycosaminyl, noviosyl, oleandrosyl, paratosyl, perosaminyl, planteosyl, pneumosaminyl, pururosaminyl, quinovosaminyl, quinovosyl, rhamnitolyl, rhamnosaminyl, rhodinosyl, rhodosaminyl, sarmentosyl, solatriosyl, stachyosyl, streptosyl, umbelliferosyl, trehalosaminyl, 1,6-anhydro-D-glucopyranosyl, 1-hydroxy- $\alpha$ -D-allopyranosyl, 2,3:5,6-di-O-isopropylidene-D-mannofuranosyl, 2-amino-2-deoxy-D-galactitolyl, 2-deoxyribosyl, 2-deoxyglucosyl, 5-amino-5-deoxy-D-glucopyranosyl, 6-deoxy-D-galactitolyl, 2-amino-2-deoxy glucosyl, 2-acetamido-2-deoxy-glucosyl, 2-amino-2-deoxy galactosyl, 2-acetamido-2-deoxy-galactosyl, 2-amino-2-deoxy-mannosyl, 2-acetamido-2-deoxy-mannosyl, 2-acetamido-2-deoxy-4-O- $\beta$ -D-galactosyl-D-glucosyl, 2-amino-2-deoxy-4-O- $\beta$ -D-galactosyl-D-glucosyl, 6'-N-acetylglucosaminyl lactosyl, 2-acetamido-2-deoxy-3-O- $\alpha$ -L-fucosyl-D-glucosyl, 6-O(2-acetamido-2-deoxy- $\beta$ -D-glucosyl)-D-galactosyl, 2-acetamido-2-deoxy-3-O- $\beta$ -D-galactosyl-D-glucosyl, 2'-acetamido-2'-deoxy-3-O- $\beta$ -D-glucosyl-D-galactosyl, 3-fucosyl-D-lactosyl, 3-fucosyl-2-acetamido-2-deoxy-4-O- $\beta$ -D-galactosyl-D-glucosyl, L or D isomers thereof,  $\alpha$  or  $\beta$  form thereof, pyranuronic or furanuronic form ~~threreefthereof~~, pyranose or furanose form thereof, combination thereof, deoxy derivatives thereof, hydroxyl-protected acetate or benzoyl derivatives thereof, amino derivatives thereof, amido derivatives thereof, thio derivatives thereof, di-, tri-, oligo- and polysaccharide thereof optionally substituted by one or more substituents independently selected from the group ~~comprising~~consisting of alkyl, aralkyl, aryl, Het<sup>1</sup>, Het<sup>2</sup>, cycloalkyl, alkyloxy, alkyloxycarbonyl, carboxyl, aminocarbonyl, mono- or di(alkyl)aminocarbonyl, aminosulfonyl, alkylS(=O)t, hydroxy, cyano, halogen or amino optionally mono- or disubstituted wherein the substituents are independently selected from the group ~~comprising~~consisting of alkyl, aryl, aralkyl, aryloxy, arylamino, arylthio, aryloxyalkyl, arylaminoalkyl, aralkoxy, alkylthio, alkoxy, aryloxyalkoxy, ~~aylaminealkoxyarylaminalkoxy~~, aralkylamino, aryloxyalkylamino, arylaminoalkylamino,

arylthioalkoxy, arylthioalkylamino, aralkylthio, aryloxyalkylthio, arylaminoalkylthio, arylthioalkylthio, alkylamino, cycloalkyl and cycloalkylalkyl;

wherein at least one of  $X_3$ ,  $X'_3$ ,  $X_4$  and  $X_7$  is a glycosyl moiety selected from the group comprisingconsisting of glucosyl, fructosyl, galactosyl,mannosyl, ribosyl, ribulosyl, xylulosyl, erythrosyl, erythrulosyl, rhamnosyl, threosyl, sorbosyl, psicosyl, tagatosyl, fucosyl, arabinosyl, xylofuranosyl, lyxosyl, talosyl, psicosyl, idosyl, gulosyl, altrosyl, allosyl, mannoheptulosyl, sedoheptulosyl, abequosyl, isomaltosyl, kojibiosyl, laminaribiosyl, nigerosyl, primeverosyl, rutinosyl, tyvelosyl, maltosyl, lactosyl, sucrosyl, cellobiosyl, trehalosyl, gentiobiosyl, melibiosyl, turanosyl, sophorosyl, isosucrosyl, raffinosyl, palatinosyl, lactulosyl, gentianosyl, 3-mannobiosyl, 6-mannobiosyl, 3-galactobiosyl, 4-galactobiosyl, maltotriosyl, maltotetraosyl, isomaltotriosyl, maltopentaosyl, maltohexaosyl, maltoheptaosyl, sicosyl, panosyl, isopanosyl, inosyl, N-acetylgalactosaminyl, mannotriosyl, globotriosyl, erlosyl, neotrehalosyl, chitobiosyl, chitobiosemannosyl, glucosaminyl, N-acetyl-glucosaminyl, octylglucopyranosyl, octyribofuranosyl, cyclohexylglucopyranosyl, cyclohexylxylofuranosyl, benzylglucopyranosyl, benzylarabinofuranosyl, N-acetyl-lactosaminyl, acosaminyl, amicetosyl, amylosyl, apiosyl, arcanosyl, ascarylosyl, bacillosaminyl, boivinosyl, cellotriosyl, chacotriosyl, chalcosyl, cladinosyl, colitosyl, cymarosyl, daunosaminyl, desosaminyl, D-glycero-L-gulo-heptosyl, diginosyl, digitalosyl, digitoxosyl, evalosyl, evernitrosyl, forosaminyl, fucosaminyl, garosaminyl, hamamelosyl, isolevoglucosenonyl, kanosaminyl, kansosaminyl, lactosaminyl, lactosediaminyl, fucitolyl, maltulosyl, mannosaminyl, melezitosyl, mycaminosyl, mycarosyl, mycinosyl, mycosaminyl, noviosyl, oleandrosyl, paratosyl, perosaminyl, planteosyl, pneumosaminyl, purpurosaminyl, quinovosaminyl, quinovosyl, rhamnitolyl, rhamnosaminyl, rhodinosyl, rhodosaminyl, sarmentosyl, solatriosyl, stachyosyl, streptosyl, umbelliferosyl, trehalosaminyl, 1,6-anhydro-D-glucopyranosyl, 1-hydroxy- $\alpha$ -D-allopyranosyl, 2,3:5,6-di-O-isopropylidene-D-mannofuranosyl, 2-amino-2-deoxy-D-galactitolyl, 2-deoxyribosyl, 2-deoxyglucosyl, 5-amino-5-deoxy-D-glucopyranosyl, 6-deoxy-D-galactitolyl, 2-amino-2-deoxy glucosyl, 2-acetamido-2-deoxy-glucosyl, 2-amino-2-deoxy galactosyl, 2-acetamido-2-deoxy-galactosyl, 2-amino-2-deoxy mannosyl, 2-acetamido-2-deoxy-

mannosyl, 2-acetamido-2-deoxy-4-O- $\beta$ -D-galactosyl-D-glucosyl, 2-amino-2-deoxy-4-O- $\beta$ -D-galactosyl-D-glucosyl, 6'-N-acetylglucosaminyllectosyl, 2-acetamido-2-deoxy-3-O- $\alpha$ -L-fucosyl-D-glucosyl, 6-O(2-acetamido-2-deoxy- $\beta$ -D-glucosyl)-D-galactosyl, 2-acetamido-2-deoxy-3-O- $\beta$ -D-galactosyl-D-glucosyl, 2'-acetamido-2'-deoxy-3-O- $\beta$ -D-glucosyl-D-galactosyl, 3-fucosyl-D-lactosyl, 3-fucosyl-2-acetamido-2-deoxy-4-O- $\beta$ -D-galactosyl-D-glucosyl, L or D isomers thereof,  $\alpha$  or  $\beta$  form thereof, pyranuronic or furanuronic form ~~thereof~~ thereof, pyranose or furanose form thereof, combination thereof, deoxy derivatives thereof, hydroxyl-protected acetate or benzoyl derivatives thereof, amino derivatives thereof, amido derivatives thereof, thio derivatives thereof, di-, tri-, oligo- and polysaccharide thereof optionally substituted by one or more substituents independently selected from the group consisting of alkyl, aralkyl, aryl, Het<sup>1</sup>, Het<sup>2</sup>, cycloalkyl, alkyloxy, alkyloxycarbonyl, carboxyl, aminocarbonyl, mono- or di(alkyl)aminocarbonyl, aminosulfonyl, alkylS(=O)t, hydroxy, cyano, halogen or amino optionally mono- or disubstituted wherein the substituents are independently selected from the group consisting of alkyl, aryl, aralkyl, aryloxy, arylamino, arylthio, aryloxyalkyl, arylaminoalkyl, aralkoxy, alkylthio, alkoxy, aryloxyalkoxy, arylaminoalkoxy, aralkylamino, aryloxyalkylamino, arylaminoalkylamino, arylthioalkoxy, arylthioalkylamino, aralkylthio, aryloxyalkylthio, arylaminoalkylthio, arylthioalkylthio, alkylamino, cycloalkyl and cycloalkylalkyl as indicated above;

wherein X<sub>5</sub> participates to in a double bond between the carbon atoms in position 4 and 5 or between carbon atoms in positions 5 and 6, and X<sub>6</sub> is selected from the group comprising consisting of hydrogen, hydroxyl and hydroxyalkyl, or

wherein X<sub>5</sub> and X<sub>6</sub> are independently selected from the group comprising consisting of halogen, hydrogen, hydroxyl, hydroxyalkyl, aminoalkyl, aminoaryl, optionally substituted by one or more substituents independently selected from the group comprising consisting of alkyl, aralkyl, aryl, Het<sup>1</sup>, Het<sup>2</sup>, cycloalkyl, alkyloxy, alkyloxycarbonyl, carboxyl, aminocarbonyl, and

wherein n is an integer between 0 and 10.

3. (Currently amended) A-The compound according to claim 1[[ or 2]], stereoisomers, tautomers, racemics, prodrugs, metabolites thereof, or a pharmaceutically acceptable salt and/or solvate thereof,

wherein X<sub>1</sub>, X<sub>2</sub>, R<sub>1</sub> and R<sub>2</sub> are independently selected from the group comprisingconsisting of hydrogen, hydroxyl, oxyalkyl, oxo, alkyl, alkenyl, alkynyl, alkyloxy, alkyloxyalkyl, alkylthioalkyl, alkoxy carbonyl, alkylthiocarbonyl, alkanoyl, cycloalkylalkyl, cycloalkylcarbonyl, cycloalkylalkanoyl, cycloalkylthiocarbonyl, cycloalkylalkoxycarbonyl, cycloalkylalkoxythiocarbonyl, cycloalkylthioalkyl, alkylcarbonyloxyalkyl, cycloalkylcarbonyloxyalkyl, silyloxyalkyl, aralkyl, arylalkenyl, arylcarbonyl, aryloxycarbonyl, arylthiocarbonyl, aralkoxycarbonyl, arylalkylthiocarbonyl, aryloxyalkyl, arylthioalkyl, haloalkyl, hydroxyalkyl, aralkanoyl, aroyl, aryloxycarbonylalkyl, aryloxyalkanoyl, carboxyl, alkenylcarbonyl and alkynylcarbonyl;

wherein X<sub>3</sub> participates together with X'<sub>3</sub> to-in an oxo functional group, or wherein X<sub>3</sub> and X'<sub>3</sub> are independently selected from the group comprisingconsisting of hydrogen, hydroxyl, sulfur, oxyalkyl, oxycarbonyl, alkyl, Het<sup>1</sup>alkyl, alkyloxy carbonyl, alkenyl, alkynyl, aminoalkyl, aminoacyl, alkylcarbonylamino, alkylthiocarbonylamino, Het<sup>1</sup>, glucosyl, fructosyl, galactosyl, mannosyl, ribosyl, ribulosyl, xylulosyl, erythrosyl, erythrulosyl, rhamnosyl, threosyl, sorbosyl, psicosyl, tagatosyl, fucosyl, arabinosyl, xylofuranosyl, lyxosyl, talosyl, psicosyl, idosyl, gulosoysl, altrosyl, allosyl, mannoheptulosyl, sedoheptulosyl, abequosyl, isomaltosyl, kojibiosyl, laminaribiosyl, nigerosyl, primeverosyl, rutinosyl, tyvelosyl, maltosyl, lactosyl, sucrosyl, cellobiosyl, trehalosyl, gentiobiosyl, melibiosyl, turanosyl, sophorosyl, isosucrosyl, raffinosyl, palatinosyl, lactulosyl, gentianosyl, 3-mannobiosyl, 6-mannobiosyl, 3-galactobiosyl, 4-galactobiosyl, maltotriosyl, maltotetraosyl, 2-amino-2-deoxy glucosyl, 2-acetamido-2-deoxy-glucosyl, 2-amino-2-deoxy-galactosyl, 2-acetamido-2-deoxy-galactosyl, 2-amino-2-deoxy-mannosyl, 2-acetamido-2-deoxy-mannosyl, 2-acetamido-2-deoxy-4-O-β-D-galactosyl-D-glucosyl, 2-amino-2-deoxy-4-O-β-D-galactosyl-D-glucosyl, 6'-N-acetylglucosaminyl lactosyl, 2-acetamido-2-deoxy-3-O-α-L-fucosyl-D-glucosyl, 6-O(2-acetamido-2-deoxy-β-D-glucosyl)-D-galactosyl, 2-acetamido-2-deoxy-3-O-β-D-galactosyl-D-glucosyl, 2'-acetamido-2'-deoxy-3-O-β-D-glucosyl-D-galactosyl, 3-fucosyl-

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D-lactosyl, 3-fucosyl-2-acetamido-2-deoxy-4-O- $\beta$ -D-galactosyl-D-glucosyl, L or D isomers thereof,  $\alpha$  or  $\beta$  form thereof, pyranuronic or furanuronic form ~~thereof~~ thereof, pyranose or furanose form thereof, combination thereof, deoxy derivatives thereof, hydroxyl-protected acetate or benzoyl derivatives thereof, amino derivatives thereof, amido derivatives thereof, thio derivatives thereof, disaccharide thereof, trisaccharide thereof, oligosaccharide and polysaccharide thereof optionally substituted by one or more substituents independently selected from the group ~~comprising~~ consisting of alkyl, aralkyl, aryl, Het<sup>1</sup>, Het<sup>2</sup>, cycloalkyl, alkyloxy, alkyloxycarbonyl, carboxyl and aminocarbonyl;

wherein X<sub>4</sub> and X<sub>7</sub> are independently selected from the group ~~comprising~~ consisting of hydrogen, oxygen, halogen, oxo, carbonyl, thiocarbonyl, hydroxyl, alkyl, aryl, Het<sup>1</sup>, Het<sup>1</sup>alkyl, Het<sup>1</sup>aryl, alkenyl, alkynyl, hydroxyalkyl, hydroxycarbonyl, hydroxycarbonylalkyl, hydroxycarbonylaryl, hydroxycarbonyloxyalkyl, glucosyl, fructosyl, galactosyl,mannosyl, ribosyl, ribulosyl, xylulosyl, erythrosyl, erythrulosyl, rhamnosyl, threosyl, sorbosyl, psicosyl, tagatosyl, fucosyl, arabinosyl, xylofuranosyl, lyxosyl, talosyl, psicosyl, idosyl, gulosyl, altrosyl, allosyl, mannoheptulosyl, sedoheptulosyl, abequosyl, isomaltosyl, kojibiosyl, laminaribiosyl, nigerosyl, primeverosyl, rutinosyl, tyvelosyl, maltosyl, lactosyl, sucrosyl, cellobiosyl, trehalosyl, gentiobiosyl, melibiosyl, turanosyl, sophorosyl, isosucrosyl, raffinosyl, palatinosyl, lactulosyl, gentianosyl, 3-mannobiosyl, 6-mannobiosyl, 3-galactobiosyl, 4-galactobiosyl, maltotriosyl, maltotetraosyl, 2-amino-2-deoxy-glucosyl, 2-acetamido-2-deoxy-glucosyl, 2-amino-2-deoxy galactosyl, 2-acetamido-2-deoxy-galactosyl, 2-amino-2-deoxy-mannosyl, 2-acetamido-2-deoxy-mannosyl, 2-acetamido-2-deoxy-4-O- $\beta$ -D-galactosyl-D-glucosyl, 2-amino-2-deoxy-4-O- $\beta$ -D-galactosyl-D-glucosyl, 6'-N-acetylglucosaminyl lactosyl, 2-acetamido-2-deoxy-3-O- $\alpha$ -L-fucosyl-D-glucosyl, 6-O(2-acetamido-2-deoxy- $\beta$ -D-glucosyl)-D-galactosyl, 2-acetamido-2-deoxy-3-O- $\beta$ -D-galactosyl-D-glucosyl, 2'-acetamido-2'-deoxy-3-O- $\beta$ -D-glucosyl-D-galactosyl, 3-fucosyl-D-lactosyl, 3-fucosyl-2-acetamido-2-deoxy-4-O- $\beta$ -D-galactosyl-D-glucosyl, L or D isomers thereof,  $\alpha$  or  $\beta$  form thereof, pyranuronic or furanuronic form ~~thereof~~ thereof, pyranose or furanose form thereof, combination thereof, deoxy derivatives thereof, hydroxyl-protected acetate or benzoyl derivatives thereof, amino derivatives thereof,

amido derivatives thereof, thio derivatives thereof, disaccharide thereof, trisaccharide thereof, oligosaccharide and polysaccharide thereof optionally substituted by one or more substituents independently selected from the group comprisingconsisting of alkyl, aralkyl, aryl, Het<sup>1</sup>, Het<sup>2</sup>, cycloalkyl, alkyloxy, alkyloxycarbonyl, carboxyl and aminocarbonyl;

wherein at least one of X<sub>3</sub>, X'<sub>3</sub>, X<sub>4</sub> and X<sub>7</sub> is a glycosyl moiety selected from the group- consisting of glucosyl, fructosyl, galactosyl,mannosyl, ribosyl, ribulosyl, xylulosyl, erythrosyl, erythrulosyl, rhamnosyl, threosyl, sorbosyl, psicosyl, tagatosyl, fucosyl, arabinosyl, xylofuranosyl, lyxosyl, talosyl, psicosyl, idosyl, gulosyl, altrosyl, allosyl, mannoheptulosyl, sedoheptulosyl, abequosyl, isomaltosyl, kojibiosyl, laminaribiosyl, nigerosyl, primeverosyl, rutinosyl, tyvelosyl, maltosyl, lactosyl, sucrosyl, cellobiosyl, trehalosyl, gentiobiosyl, melibiosyl, turanosyl, sophorosyl, isosucrosyl, raffinosyl, palatinosyl, lactulosyl, gentianosyl, 3-mannobiosyl, 6-mannobiosyl, 3-galactobiosyl, 4-galactobiosyl, maltotriosyl, maltotetraosyl, isomaltotriosyl, maltopentaosyl, maltohexaosyl, maltoheptaosyl, sicosyl, panosyl, isopanosyl, inosyl, N-acetylgalactosaminyl, mannotriosyl, globotriosyl, erlosyl, neotrehalosyl, chitobiosyl, chitobiosemannosyl, glucosaminyl, N-acetyl-glucosaminyl, octylglucopyranosyl, octyribofuranosyl, cyclohexylglucopyranosyl, cyclohexylxylofuranosyl, benzylglucopyranosyl, benzylarabinofuranosyl, N-acetyl-lactosaminyl, acosaminyl, amicetosyl, amylosyl, apiosyl, arcanosyl, ascarylosyl, bacillosaminyl, boivinosyl, cellotriosyl, chacotriosyl, chalcosyl, cladinosyl, colitosyl, cymarosyl, daunosaminyl, desosaminyl, D-glycero-L-gulo-heptosyl, diginosyl, digitalosyl, digitoxosyl, evalosyl, evernitrosyl, forosaminyl, fucosaminyl, garosaminyl, hamamelosyl, isolevoglucosenonyl, kanosaminyl, kansosaminyl, lactosaminyl, lactosediaminyl, fucitolyl, maltulosyl, mannosaminyl, melezitosyl, mycaminosyl, mycarosyl, mycinosyl, mycosaminyl, noviosyl, oleandrosyl, paratosyl, perosaminyl, planteosyl, pneumosaminyl, purpurosaminyl, quinovosaminyl, quinovosyl, rhamnitolyl, rhamnosaminyl, rhodinosyl, rhodosaminyl, sarmentosyl, solatriosyl, stachyosyl, streptosyl, umbelliferosyl, trehalosaminyl, 1,6-anhydro-D-glucopyranosyl, 1-hydroxy- $\alpha$ -D-allopyranosyl, 2,3:5,6-di-O-isopropylidene-D-mannofuranosyl, 2-amino-2-deoxy-D-galactitolyl, 2-deoxyribosyl, 2-deoxyglucosyl, 5-amino-5-deoxy-D-glucopyranosyl, 6-deoxy-D-galactitolyl, 2-amino-2-

deoxy glucosyl, 2-acetamido-2-deoxy-glucosyl, 2-amino-2-deoxy galactosyl, 2-acetamido-2-deoxy-galactosyl, 2-amino-2-deoxy mannosyl, 2-acetamido-2-deoxy-mannosyl, 2-acetamido-2-deoxy-4-O- $\beta$ -D-galactosyl-D-glucosyl, 2-amino-2-deoxy-4-O- $\beta$ -D-galactosyl-D-glucosyl, 6'-N-acetylglucosaminyllectosyl, 2-acetamido-2-deoxy-3-O- $\alpha$ -L-fucosyl-D-glucosyl, 6-O(2-acetamido-2-deoxy- $\beta$ -D-glucosyl)-D-galactosyl, 2-acetamido-2-deoxy-3-O- $\beta$ -D-galactosyl-D-glucosyl, 2'-acetamido-2'-deoxy-3-O- $\beta$ -D-glucosyl-D-galactosyl, 3-fucosyl-D-lactosyl, 3-fucosyl-2-acetamido-2-deoxy-4-O- $\beta$ -D-galactosyl-D-glucosyl, L or D isomers thereof,  $\alpha$  or  $\beta$  form thereof, pyranuronic or furanuronic form thereof, pyranose or furanose form thereof, combination thereof, deoxy derivatives thereof, hydroxyl-protected acetate or benzoyl derivatives thereof, amino derivatives thereof, amido derivatives thereof, thio derivatives thereof, di-, tri-, oligo- and polysaccharide thereof optionally substituted by one or more substituents independently selected from the group consisting of alkyl, aralkyl, aryl, Het<sup>1</sup>, Het<sup>2</sup>, cycloalkyl, alkyloxy, alkyloxycarbonyl, carboxyl, aminocarbonyl, mono- or di(alkyl)aminocarbonyl, aminosulfonyl, alkylS(=O)t, hydroxy, cyano, halogen or amino optionally mono- or disubstituted wherein the substituents are independently selected from the group consisting of alkyl, aryl, aralkyl, aryloxy, arylamino, arylthio, aryloxyalkyl, arylaminoalkyl, aralkoxy, alkylthio, alkoxy, aryloxyalkoxy, arylaminoalkoxy, aralkylamino, aryloxyalkylamino, arylaminoalkylamino, arylthioalkoxy, arylthioalkylamino, aralkylthio, aryloxyalkylthio, arylaminoalkylthio, arylthioalkylthio, alkylamino, cycloalkyl and cycloalkylalkyl as indicated above;

wherein X<sub>5</sub> participates to in a double bond between the carbon atoms in position 4 and 5 or between carbon atoms in position 5 and 6, and X<sub>6</sub> is selected from the group comprisingconsisting of hydrogen, hydroxyl, and hydroxyalkyl, or wherein X<sub>5</sub> and X<sub>6</sub> are independently selected from the group comprisingconsisting of hydrogen, hydroxyl, hydroxyalkyl, aminoalkyl, aminoaryl, optionally substituted by one or more substituents independently selected from the group comprisingconsisting of alkyl, aralkyl, aryl, Het<sup>1</sup>, Het<sup>2</sup>, cycloalkyl, alkyloxy, alkyloxycarbonyl, carboxyl, aminocarbonyl, and

wherein n is an integer between 0 and 5.

4. (Currently amended) A-The compound according to any of claims 1 to 3 claim 1, stereoisomers, tautomers, racemics, prodrugs, metabolites thereof, or a pharmaceutically acceptable salt and/or solvate thereof,

wherein  $X_1$ ,  $X_2$ ,  $R_1$  and  $R_2$  are independently selected from the group comprisingconsisting of hydrogen, hydroxyl, alkyloxy, oxo and oxyalkyl,

wherein  $X_3$  participates together with  $X'_3$  to-in an oxo functional group, or wherein  $X_3$  and  $X'_3$  are independently selected from the group comprisingconsisting of hydrogen, hydroxyl, oxyalkyl, oxycarbonyl, glucosyl, fructosyl, galactosyl, mannosyl, ribosyl, ribulosyl, xylulosyl, erythrosyl, erythrulosyl, rhamnosyl, threosyl, sorbosyl, psicosyl, tagatosyl, fucosyl, arabinosyl, altrosyl, laminaribiosyl, isomaltosyl, maltosyl, lactosyl, cellobiosyl, gentiobiosyl, melibiosyl, palatinosyl, lactulosyl, 3-mannobiosyl, 6-mannobiosyl, 3-galactobiosyl, 4-galactobiosyl, maltotriosyl, maltotetraosyl, 2-amino-2-deoxy-glucosyl, 2-acetamido-2-deoxy-glucosyl, 2-amino-2-deoxy-galactosyl, 2-acetamido-2-deoxy-galactosyl, 2-amino-2-deoxy-mannosyl, 2-acetamido-2-deoxy-mannosyl, 2-acetamido-2-deoxy-4-O- $\beta$ -D-galactosyl-D-glucosyl, 2-amino-2-deoxy-4-O- $\beta$ -D-galactosyl-D-glucosyl, 6'-N-acetylglucosaminyllectosyl, 2-acetamido-2-deoxy-3-O- $\alpha$ -L-fucosyl-D-glucosyl, 6-O(2-acetamido-2-deoxy- $\beta$ -D-glucosyl)-D-galactosyl, 2-acetamido-2-deoxy-3-O- $\beta$ -D-galactosyl-D-glucosyl, 2'-acetamido-2'-deoxy-3-O- $\beta$ -D-glucosyl-D-galactosyl, 3-fucosyl-D-lactosyl, 3-fucosyl-2-acetamido-2-deoxy-4-O- $\beta$ -D-galactosyl-D-glucosyl, L or D isomers thereof,  $\alpha$  or  $\beta$  form thereof, pyranuronic or furanuronic form thereeof, pyranose or furanose form thereof, combination thereof, deoxy derivatives thereof, hydroxyl-protected acetate derivatives thereof, amino derivatives thereof, amido derivatives thereof, thio derivatives thereof, disaccharide thereof, trisaccharide thereof, oligosaccharide and polysaccharide thereof;

wherein  $X_4$  and  $X_7$  are independently selected from the group comprisingconsisting of hydrogen, oxygen, oxo, hydroxyl, glucosyl, fructosyl, galactosyl, mannosyl, ribosyl, ribulosyl, xylulosyl, erythrosyl, erythrulosyl, rhamnosyl, threosyl, sorbosyl, psicosyl, tagatosyl, fucosyl, arabinosyl, altrosyl, laminaribiosyl, isomaltosyl, maltosyl, lactosyl, cellobiosyl, gentiobiosyl, melibiosyl, palatinosyl, lactulosyl, 3-mannobiosyl, 6-mannobiosyl, 3-galactobiosyl, 4-galactobiosyl, maltotriosyl,

maltotetraosyl, 2-amino-2-deoxy-glucosyl, 2-acetamido-2-deoxy-glucosyl, 2-amino-2-deoxy galactosyl, 2-acetamido-2-deoxy-galactosyl, 2-amino-2-deoxy-mannosyl, 2-acetamido-2-deoxy-mannosyl, 2-acetamido-2-deoxy-4-O- $\beta$ -D-galactosyl-D-glucosyl, 2-amino-2-deoxy-4-O- $\beta$ -D-galactosyl-D-glucosyl, 6'-N-acetylglucosaminyl lactosyl, 2-acetamido-2-deoxy-3-O- $\alpha$ -L-fucosyl-D-glucosyl, 6-O(2-acetamido-2-deoxy- $\beta$ -D-glucosyl)-D-galactosyl, 2-acetamido-2-deoxy-3-O- $\beta$ -D-galactosyl-D-glucosyl, 2'-acetamido-2'-deoxy-3-O- $\beta$ -D-glucosyl-D-galactosyl, 3-fucosyl-D-lactosyl, 3-fucosyl-2-acetamido-2-deoxy-4-O- $\beta$ -D-galactosyl-D-glucosyl, L or D isomers thereof,  $\alpha$  or  $\beta$  form thereof, pyranuronic or furanuronic form ~~thereeof~~ thereof, pyranose or furanose form thereof, combination thereof, deoxy derivatives thereof, hydroxyl-protected acetate or benzoyl derivatives thereof, amino derivatives thereof, amido derivatives thereof, thio derivatives thereof, disaccharide thereof, trisaccharide thereof, oligosaccharide and polysaccharide thereof;

wherein at least one of X<sub>3</sub>, X'<sub>3</sub>, X<sub>4</sub> and X<sub>7</sub> is a glycosyl moiety selected from the group consisting of glucosyl, fructosyl, galactosyl,mannosyl,ribosyl,ribulosyl,xylulosyl, erythrosyl, erythrulosyl, rhamnosyl, threosyl, sorbosyl, psicosyl, tagatosyl, fucosyl, arabinosyl, xylofuranosyl, lyxosyl, talosyl, psicosyl, idosyl, gulosyl, altrosyl, allosyl, mannoheptulosyl, sedoheptulosyl, abequosyl, isomaltosyl, kojibiosyl, laminaribiosyl, nigerosyl, primeverosyl, rutinosyl, tyvelosyl, maltosyl, lactosyl, sucrosvyl, cellobiosyl, trehalosyl, gentiobiosyl, melibiosyl, turanosyl, sophorosyl, isosucrosyl, raffinosyl, palatinosyl, lactulosyl, gentianosyl, 3-mannobiosyl, 6-mannobiosyl, 3-galactobiosyl, 4-galactobiosyl, maltotriosyl, maltotetraosyl, isomaltotriosyl, maltopentaosyl, maltohexaosyl, maltoheptaosyl, sicosyl, panosyl, isopanosyl, inosyl, N-acetylgalactosaminyl, mannotriosyl, globotriosyl, erlosyl, neotrehalosyl, chitobiosyl, chitobiosemannosyl, glucosaminyl, N-acetyl-glucosaminyl, octylglucopyranosyl, octylibofuranosyl, cyclohexylglucopyranosyl, cyclohexylxylofuranosyl, benzylglucopyranosyl, benzylarabinofuranosyl, N-acetyl-lactosaminyl, acosaminyl, amicetosyl, amylosyl, apiosyl, arcanosyl, ascarylosyl, bacillosaminyl, boivinosyl, cellotriosyl, chacotriosyl, chalcosyl, cladinosyl, colitosyl, cymarosyl, daunosaminyl, desosaminyl, D-glycero-L-gulo-heptosyl, diginosyl, digitalosyl, digitoxosyl, evalosyl, evernitrosyl, forosaminyl, fucosaminyl, garosaminyl, hamamelosyl, isolevoglucosenonyl,

kanosaminyl, kansosaminyl, lactosaminyl, lactosidaminylyl, fucitoly, maltulosyl,  
mannosaminyl, melezitosyl, mycaminosyl, mycarosyl, mycinosyl, mycosaminyl,  
noviosyl, oleandrosyl, paratosyl, perosaminyl, planteosyl, pneumosaminyl,  
purpurosaminyl, quinovosaminyl, quinovosyl, rhamnitolyl, rhamnosaminyl, rhodinosyl,  
rhodosaminyl, sarmentosyl, solatriosyl, stachyosyl, streptosyl, umbelliferosyl,  
trehalosaminyl, 1,6-anhydro-D-glucopyranosyl, 1-hydroxy- $\alpha$ -D-allopyranosyl, 2,3:5,6-di-  
O-isopropylidene-D-mannofuranosyl, 2-amino-2-deoxy-D-galactitolyl, 2-deoxyribosyl, 2-  
deoxyglucosyl, 5-amino-5-deoxy-D-glucopyranosyl, 6-deoxy-D-galactitolyl, 2-amino-2-  
deoxy glucosyl, 2-acetamido-2-deoxy-glucosyl, 2-amino-2-deoxy galactosyl, 2-  
acetamido-2-deoxy-galactosyl, 2-amino-2-deoxy mannosyl, 2-acetamido-2-deoxy-  
mannosyl, 2-acetamido-2-deoxy-4-O- $\beta$ -D-galactosyl-D-glucosyl, 2-amino-2-deoxy-4-O-  
 $\beta$ -D-galactosyl-D-glucosyl, 6'-N-acetylglucosaminylactosyl, 2-acetamido-2-deoxy-3-O-  
 $\alpha$ -L-fucosyl-D-glucosyl, 6-O(2-acetamido-2-deoxy- $\beta$ -D-glucosyl)-D-galactosyl, 2-  
acetamido-2-deoxy-3-O- $\beta$ -D-galactosyl-D-glucosyl, 2'-acetamido-2'-deoxy-3-O- $\beta$ -D-  
glucosyl-D-galactosyl, 3-fucosyl-D-lactosyl, 3-fucosyl-2-acetamido-2-deoxy-4-O- $\beta$ -D-  
galactosyl-D-glucosyl, L or D isomers thereof,  $\alpha$  or  $\beta$  form thereof, pyranuronic or  
furanuronic form thereof, pyranose or furanose form thereof, combination thereof,  
deoxy derivatives thereof, hydroxyl-protected acetate or benzoyl derivatives thereof,  
amino derivatives thereof, amido derivatives thereof, thio derivatives thereof, di-, tri-,  
oligo- and polysaccharide thereof optionally substituted by one or more substituents  
independently selected from the group consisting of alkyl, aralkyl, aryl, Het<sup>1</sup>, Het<sup>2</sup>,  
cycloalkyl, alkyloxy, alkyloxycarbonyl, carboxyl, aminocarbonyl, mono- or  
di(alkyl)aminocarbonyl, aminosulfonyl, alkylS(=O)t, hydroxy, cyano, halogen or amino  
optionally mono- or disubstituted wherein the substituents are independently selected  
from the group consisting of alkyl, aryl, aralkyl, aryloxy, arylamino, arylthio, aryloxyalkyl,  
arylaminoalkyl, aralkoxy, alkylthio, alkoxy, aryloxyalkoxy, arylaminoalkoxy, aralkylamino,  
aryloxyalkylamino, arylaminoalkylamino, arylthioalkoxy, arylthioalkylamino, aralkylthio,  
aryloxyalkylthio, arylaminoalkylthio, arylthioalkylthio, alkylamino, cycloalkyl and  
cycloalkylalkyls indicated above;

wherein X<sub>4</sub> or X<sub>6</sub> are hydrogen and wherein X<sub>5</sub> participates to-in a double bond between the carbon atoms in position 4 and 5 or in position 5 and 6, and

wherein n is an integer between 0 and 2.

5. (Currently amended) A-The compound according to any of claims 1 to 4claim 1, stereoisomers, tautomers, racemics, prodrugs, metabolites thereof, or a pharmaceutically acceptable salt and/or solvate thereof, wherein X<sub>1</sub> and X<sub>2</sub> are -OMe, wherein R<sub>1</sub> and R<sub>2</sub> are -H, wherein X<sub>3</sub> is selected from the group comprisingconsisting of glucosyl, fructosyl, galactosyl, mannosyl, fucosyl, isomaltosyl, maltosyl, cellobiosyl, gentiobiosyl, melibiosyl, palatinosyl, lactulosyl, 3-mannobiosyl, 6-mannobiosyl, 3-galactobiosyl, 4-galactobiosyl, maltotriosyl, maltotetraosyl, 2-amino-2-deoxy glucosyl, 2-acetamido-2-deoxy-glucosyl, 2-amino-2-deoxy galactosyl, 2-acetamido-2-deoxy galactosyl, 2-acetamido-2-deoxy-4-O- $\beta$ -D-galactosyl-D-glucosyl, 2-amino-2-deoxy-4-O- $\beta$ -D-galactosyl-D-glucosyl, 6'-N-acetylglucosaminyllectosyl, 2-acetamido-2-deoxy-3-O- $\alpha$ -L-fucosyl-D-glucosyl, 6-O(2-acetamido-2-deoxy- $\beta$ -D-glucosyl)-D-galactosyl, 2-acetamido-2-deoxy-3-O- $\beta$ -D-galactosyl-D-glucosyl, 2'-acetamido-2'-deoxy-3-O- $\beta$ -D-glucosyl-D-galactosyl, 3-fucosyl-D-lactosyl, 3-fucosyl-2-acetamido-2-deoxy-4-O- $\beta$ -D-galactosyl-D-glucosyl, L or D isomers thereof,  $\alpha$  or  $\beta$  form thereof, pyranuronic or furanuronic form thereeofthereof, pyranose or furanose form thereof, a disaccharide or a trisaccharide thereof, wherein X'<sub>3</sub> is selected from the group comprisingconsisting of hydrogen, alkyl or aralkyl, wherein X<sub>4</sub> is hydrogen, wherein X<sub>5</sub> participates to-in a double bond between the carbon atoms in position 5 and 6, wherein X<sub>6</sub> is -H, wherein X<sub>7</sub> is selected from the group comprisingconsisting of hydrogen, oxygen, hydroxyl or oxo, and wherein n is 0.

6. (Currently amended) A-The compound according to any of claims 1 to 4claim 1, stereoisomers, tautomers, racemics, prodrugs, metabolites thereof, or a pharmaceutically acceptable salt and/or solvate thereof, wherein X<sub>1</sub> and X<sub>2</sub> are -OMe, wherein R<sub>1</sub> and R<sub>2</sub> are -H, wherein X<sub>3</sub> is selected from the group comprisingconsisting of hydrogen, hydroxyl, oxyalkyl or oxycarbonyl, wherein X'<sub>3</sub> is selected from the group comprisingconsisting of glucosyl, fructosyl, galactosyl, mannosyl, fucosyl, isomaltosyl, maltosyl, cellobiosyl, gentiobiosyl, melibiosyl, palatinosyl, lactulosyl, 3-mannobiosyl, 6-mannobiosyl, 3-galactobiosyl, 4-galactobiosyl, maltotriosyl, maltotetraosyl, 2-amino-2-deoxy-glucosyl, 2-acetamido-2-deoxy-glucosyl, 2-amino-2-deoxy-galactosyl, 2-

acetamido-2-deoxy-galactosyl, 2-acetamido-2-deoxy-4-O- $\beta$ -D-galactosyl-D-glucosyl, 2-Amino-2-deoxy-4-O- $\beta$ -D-galactosyl-D-glucosyl, 6'-N-acetylglucosaminyl lactosyl, 2-acetamido-2-deoxy-3-O- $\alpha$ -L-fucosyl-D-glucosyl, 6-O(2-acetamido-2-deoxy- $\beta$ -D-glucosyl)-D-galactosyl, 2-acetamido-2-deoxy-3-O- $\beta$ -D-galactosyl-D-glucosyl, 2'-acetamido-2'-deoxy-3-O- $\beta$ -D-glucosyl-D-galactosyl, 3-fucosyl-D-lactosyl, 3-fucosyl-2-acetamido-2-deoxy-4-O- $\beta$ -D-galactosyl-D-glucosyl, L or D isomers thereof,  $\alpha$  or  $\beta$  form thereof, pyranuronic or furanuronic form ~~thereeof~~ thereof, pyranose or furanose form thereof, a disaccharide or a trisaccharide thereof, wherein X<sub>4</sub> is hydrogen, wherein X<sub>5</sub> participates ~~to-in~~ a double bond between the carbon atoms in position 5 and 6, wherein X<sub>6</sub> is -H, wherein X<sub>7</sub> is selected from the group ~~comprising~~consisting of hydrogen, oxygen, hydroxyl or oxo, and wherein n is 0.

7. (Currently amended) A-The compound according to ~~any of claims 1 to 4~~claim 1, stereoisomers, tautomers, racemics, prodrugs, metabolites thereof, or a pharmaceutically acceptable salt and/or solvate thereof, wherein X<sub>1</sub> and X<sub>2</sub> are -OMe, wherein R<sub>1</sub> and R<sub>2</sub> are -H, wherein X<sub>3</sub> participates together with X'<sub>3</sub> ~~to-in~~ an oxo functional group, wherein X<sub>4</sub> is selected from the group ~~comprising~~consisting of glucosyl, fructosyl, galactosyl, mannosyl, fucosyl, isomaltosyl, maltosyl, cellobiosyl, gentiobiosyl, melibiosyl, palatinosyl, lactulosyl, 3-mannobiosyl, 6-mannobiosyl, 3-galactobiosyl, 4-galactobiosyl, maltotriosyl, maltotetraosyl, 2-amino-2-deoxy-glucosyl, 2-acetamido-2-deoxy-glucosyl, 2-amino-2-deoxy-galactosyl, 2-acetamido-2-deoxy-galactosyl, 2-acetamido-2-deoxy-4-O- $\beta$ -D-galactosyl-D-glucosyl, 2-amino-2-deoxy-4-O- $\beta$ -D-galactosyl-D-glucosyl, 6'-N-acetylglucosaminyl lactosyl, 2-acetamido-2-deoxy-3-O- $\alpha$ -L-fucosyl-D-glucosyl, 6-O(2-acetamido-2-deoxy- $\beta$ -D-glucosyl)-D-galactosyl, 2-acetamido-2-deoxy-3-O- $\beta$ -D-galactosyl-D-glucosyl, 3-fucosyl-D-lactosyl, 3-fucosyl-2-acetamido-2-deoxy-4-O- $\beta$ -D-galactosyl-D-glucosyl, L or D isomers thereof,  $\alpha$  or  $\beta$  form thereof, pyranuronic or furanuronic form ~~thereeof~~ thereof, pyranose or furanose form thereof, a disaccharide or a trisaccharide thereof, wherein X<sub>5</sub> participates ~~to-in~~ a double bond between the carbon atoms in position 4 and 5, wherein X<sub>6</sub> is -H, wherein X<sub>7</sub> is selected from the group

comprisingconsisting of hydrogen, oxygen, hydroxyl , alkyloxy or oxo, and wherein n is 0.

8. (Currently amended) A-The compound according to any of claims 1 to 4claim 1, stereoisomers, tautomers, racemics, prodrugs, metabolites thereof, or a pharmaceutically acceptable salt and/or solvate thereof, wherein X<sub>1</sub> and X<sub>2</sub> are -OMe, wherein R<sub>1</sub> and R<sub>2</sub> are -H, wherein X<sub>3</sub> participates together with X'<sub>3</sub> ~~to-in~~ an oxo functional group, wherein X<sub>4</sub> is hydrogen, wherein X<sub>5</sub> participates ~~to-in~~ a double bond between the carbon atoms in position 5 and 6, wherein X<sub>6</sub> is -H, wherein X<sub>7</sub> is selected from the group comprisingconsisting of glucosyl, fructosyl, galactosyl, mannosyl, fucosyl, isomaltosyl, maltosyl, cellobiosyl, gentiobiosyl, melibiosyl, palatinosyl, lactulosyl, 3-mannobiosyl, 6-mannobiosyl, 3-galactobiosyl, 4-galactobiosyl, maltotriosyl, maltotetraosyl, 2-amino-2-deoxy glucosyl, 2-acetamido-2-deoxy-glucosyl, 2-amino-2-deoxy-galactosyl, 2-acetamido-2-deoxy-galactosyl, 2-acetamido-2-deoxy-4-O-β-D-galactosyl-D-glucosyl, 2-amino-2-deoxy-4-O-β-D-galactosyl-D-glucosyl, 6'-N-acetylglucosaminyllactosyl, 2-acetamido-2-deoxy-3-O-α-L-fucosyl-D-glucosyl, 6-O(2-acetamido-2-deoxy-β-D-glucosyl)-D-galactosyl, 2-acetamido-2-deoxy-3-O-β-D-galactosyl-D-glucosyl, 2'-acetamido-2'-deoxy-3-O-β-D-glucosyl-D-galactosyl, 3-fucosyl-D-lactosyl, 3-fucosyl-2-acetamido-2-deoxy-4-O-β-D-galactosyl-D-glucosyl, L or D isomers thereof, α or β form thereof, pyranuronic or furanuronic form ~~threreeofthereof~~, pyranose or furanose form thereof, a disaccharide or a trisaccharide thereof; and wherein n is 0.

9. (Currently amended) A-The compound according to any of claims 1 to 4claim 1, stereoisomers, tautomers, racemics, prodrugs, metabolites thereof, or a pharmaceutically acceptable salt and/or solvate thereof, wherein X<sub>1</sub> and X<sub>2</sub> are -OMe, wherein R<sub>1</sub> and R<sub>2</sub> are -H, wherein X<sub>3</sub> or X'<sub>3</sub> are independently selected from the group comprisingconsisting of hydrogen or glucosyl, fructosyl, galactosyl, mannosyl, fucosyl, isomaltosyl, maltosyl, cellobiosyl, gentiobiosyl, melibiosyl, palatinosyl, lactulosyl, 3-mannobiosyl, 6-mannobiosyl, 3-galactobiosyl, 4-galactobiosyl, maltotriosyl, maltotetraosyl, 2-amino-2-deoxy glucosyl, 2-acetamido-2-deoxy-glucosyl, 2-amino-2-

deoxy-galactosyl, 2-acetamido-2-deoxy-galactosyl, 2-acetamido-2-deoxy-4-O- $\beta$ -D-galactosyl-D-glucosyl, 2-Amino-2-deoxy-4-O- $\beta$ -D-galactosyl-D-glucosyl, 6'-N-acetylglucosaminyl lactosyl, 2-acetamido-2-deoxy-3-O- $\alpha$ -L-fucosyl-D-glucosyl, 6-O(2-acetamido-2-deoxy- $\beta$ -D-glucosyl)-D-galactosyl, 2-acetamido-2-deoxy-3-O- $\beta$ -D-galactosyl-D-glucosyl, 2'-acetamido-2'-deoxy-3-O- $\beta$ -D-glucosyl-D-galactosyl, 3'-Fucosyl-D-Lactosyl, 3'-Fucosyl-2-acetamido-2-deoxy-4-O- $\beta$ -D-galactosyl-D-glucosyl, L or D isomers thereof,  $\alpha$  or  $\beta$  form thereof, pyranuronic or furanuronic form ~~thereeof~~ thereof, pyranose or furanose form thereof, a disaccharide or a trisaccharide thereof, wherein X<sub>4</sub> is selected from the group comprisingconsisting of glucosyl, fructosyl, galactosyl, mannosyl, fucosyl, isomaltosyl, isomaltosyl, cellobiosyl, gentiobiosyl, melibiosyl, palatinosyl, lactulosyl, 3-mannobiosyl, 6-mannobiosyl, 3-galactobiosyl, 4-galactobiosyl, maltotriosyl, maltotetraosyl, 2-amino-2-deoxy glucosyl, 2-acetamido-2-deoxy-glucosyl, 2-amino-2-deoxy-galactosyl, 2-acetamido-2-deoxy-galactosyl, 2-acetamido-2-deoxy-4-O- $\beta$ -D-galactosyl-D-glucosyl, 2-amino-2-deoxy-4-O- $\beta$ -D-galactosyl-D-glucosyl, 6'-N-acetylglucosaminyl lactosyl, 2-acetamido-2-deoxy-3-O- $\alpha$ -L-fucosyl-D-glucosyl, 6-O(2-acetamido-2-deoxy- $\beta$ -D-glucosyl)-D-galactosyl, 2-acetamido-2-deoxy-3-O- $\beta$ -D-galactosyl-D-glucosyl, 2'-acetamido-2'-deoxy-3-O- $\beta$ -D-glucosyl-D-galactosyl, 3-fucosyl-D-lactosyl, 3-fucosyl-2-acetamido-2-deoxy-4-O- $\beta$ -D-galactosyl-D-glucosyl, L or D isomers thereof,  $\alpha$  or  $\beta$  form thereof, pyranuronic or furanuronic form ~~thereeof~~ thereof, pyranose or furanose form thereof, a disaccharide or a trisaccharide thereof, wherein X<sub>5</sub> and X<sub>6</sub> participates toin a double bond between the carbon atoms in position 4 and 5, wherein X<sub>6</sub> is -H, wherein X<sub>7</sub> is selected from the group comprisingconsisting of hydrogen, oxygen, hydroxyl, alkyloxy or oxo, wherein at least one of X<sub>3</sub> and X'<sub>3</sub> is a glycosyl moiety selected from the group consisting of glucosyl, fructosyl, galactosyl, mannosyl, ribosyl, ribulosyl, xylulosyl, erythrosyl, erythrulosyl, rhamnosyl, threosyl, sorbosyl, psicosyl, tagatosyl, fucosyl, arabinosyl, xyofuranosyl, lyxosyl, talosyl, psicosyl, idosyl, gulosyl, altrosyl, allosyl, mannoheptulosyl, sedoheptulosyl, abequosyl, isomaltosyl, kojibiosyl, laminaribiosyl, nigerosyl, primeverosyl, rutinosyl, tyvelosyl, maltosyl, lactosyl, sucrosyl, cellobiosyl, trehalosyl, gentiobiosyl, melibiosyl, turanosyl, sophorosyl, isosucrosyl, raffinosyl, palatinosyl, lactulosyl, gentianosyl, 3-mannobiosyl,

6-mannobiosyl, 3-galactobiosyl, 4-galactobiosyl, maltotriosyl, maltotetraosyl, isomaltotriosyl, maltopentaosyl, maltohexaosyl, maltoheptaosyl, sicosyl, panosyl, isopanosyl, inosyl, N-acetylgalactosaminyl, mannotriosyl, globotriosyl, erlosyl, neotrehalosyl, chitobiosyl, chitobiosemannosyl, glucosaminyl, N-acetyl-glucosaminyl, octylglucopyranosyl, octylribofuranosyl, cyclohexylglucopyranosyl, cyclohexylxylofuranosyl, benzylglucopyranosyl, benzylarabinofuranosyl, N-acetyl-lactosaminyl, acosaminyl, amicetosyl, amylosyl, apiosyl, arcanosyl, ascarylosyl, bacillosaminyl, boivinosyl, cellotriosyl, chacotriosyl, chalconosyl, cladinosyl, colitosyl, cymarosyl, daunosaminyl, desosaminyl, D-glycero-L-gulo-heptosyl, diginosyl, digitalosyl, digitoxosyl, evalosyl, evernitrosyl, forosaminyl, fucosaminyl, garosaminyl, hamamelosyl, isolevoglucosenonyl, kanosaminyl, kansosaminyl, lactosaminyl, lactosediaminyl, fucitolyl, maltulosyl, mannosaminyl, melezitosyl, mycaminosyl, mycarosyl, mycinosyl, mycosaminyl, noviosyl, oleandrosyl, paratosyl, perosaminyl, planteosyl, pneumosaminyl, pururosaminyl, quinovosaminyl, quinovosyl, rhamnitolyl, rhamnosaminyl, rhodinosyl, rhodosaminyl, sarmenosyl, solatriosyl, stachyosyl, streptosyl, umbelliferosyl, trehalosaminyl, 1,6-anhydro-D-glucopyranosyl, 1-hydroxy- $\alpha$ -D-allopyranosyl, 2,3:5,6-di-O-isopropylidene-D-mannofuranosyl, 2-amino-2-deoxy-D-galactitolyl, 2-deoxyribosyl, 2-deoxyglucosyl, 5-amino-5-deoxy-D-glucopyranosyl, 6-deoxy-D-galactitolyl, 2-amino-2-deoxy glucosyl, 2-acetamido-2-deoxy-glucosyl, 2-amino-2-deoxy galactosyl, 2-acetamido-2-deoxy-galactosyl, 2-amino-2-deoxy mannosyl, 2-acetamido-2-deoxy-mannosyl, 2-acetamido-2-deoxy-4-O- $\beta$ -D-galactosyl-D-glucosyl, 2-amino-2-deoxy-4-O- $\beta$ -D-galactosyl-D-glucosyl, 6'-N-acetylglucosaminyl lactosyl, 2-acetamido-2-deoxy-3-O- $\alpha$ -L-fucosyl-D-glucosyl, 6-O(2-acetamido-2-deoxy- $\beta$ -D-glucosyl)-D-galactosyl, 2-acetamido-2-deoxy-3-O- $\beta$ -D-galactosyl-D-glucosyl, 2'-acetamido-2'-deoxy-3-O- $\beta$ -D-glucosyl-D-galactosyl, 3-fucosyl-D-lactosyl, 3-fucosyl-2-acetamido-2-deoxy-4-O- $\beta$ -D-galactosyl-D-glucosyl, L or D isomers thereof,  $\alpha$  or  $\beta$  form thereof, pyranuronic or furanuronic form thereof, pyranose or furanose form thereof, combination thereof, deoxy derivatives thereof, hydroxyl-protected acetate or benzoyl derivatives thereof, amino derivatives thereof, amido derivatives thereof, thio derivatives thereof, di-, tri-, oligo- and polysaccharide thereof optionally substituted by one or more substituents independently selected from the group consisting of alkyl, aralkyl, aryl,

Het<sup>1</sup>, Het<sup>2</sup>, cycloalkyl, alkyloxy, alkyloxycarbonyl, carboxyl, aminocarbonyl, mono- or di(alkyl)aminocarbonyl, aminosulfonyl, alkylS(=O)t, hydroxy, cyano, halogen or amino  
optionally mono- or disubstituted wherein the substituents are independently selected  
from the group consisting of alkyl, aryl, aralkyl, aryloxy, arylamino, arylthio, aryloxyalkyl,  
arylaminoalkyl, aralkoxy, alkylthio, alkoxy, aryloxyalkoxy, arylaminoalkoxy, aralkylamino,  
aryloxyalkylamino, arylaminoalkylamino, arylthioalkoxy, arylthioalkylamino, aralkylthio,  
aryloxyalkylthio, arylaminoalkylthio, arylthioalkylthio, alkylamino, cycloalkyl and  
cycloalkylalkyl as indicated above and wherein n is 0.

10. (Currently amended) A The compound according to any of claims 1 to 4 claim 1, stereoisomers, tautomers, racemics, prodrugs, metabolites thereof, or a pharmaceutically acceptable salt and/or solvate thereof, wherein X<sub>1</sub> and X<sub>2</sub> are -OMe, wherein R<sub>1</sub> and R<sub>2</sub> are -H, wherein X<sub>3</sub> or X'<sub>3</sub> are independently selected from the group comprisingconsisting of hydrogen, glucosyl, fructosyl, galactosyl,mannosyl, fucosyl, isomaltosyl, maltosyl, cellobiosyl, gentiobiosyl, melibiosyl, palatinosyl, lactulosyl, 3-mannobiosyl, 6-mannobiosyl, 3-galactobiosyl, 4-galactobiosyl, maltotriosyl, maltotetraosyl, 2-amino-2-deoxy-glucosyl, 2-acetamido-2-deoxy-glucosyl, 2-amino-2-deoxy-galactosyl, 2-acetamido-2-deoxy-galactosyl, 2-acetamido-2-deoxy-4-O-β-D-galactosyl-D-glucosyl, 2-amino-2-deoxy-4-O-β-D-galactosyl-D-glucosyl, 6'-N-acetylglucosaminyl lactosyl, 2-acetamido-2-deoxy-3-O-α-L-fucosyl-D-glucosyl, 6-O(2-acetamido-2-deoxy-β-D-glucosyl)-D-galactosyl, 2-acetamido-2-deoxy-3-O-β-D-galactosyl-D-glucosyl, 2'-acetamido-2'-deoxy-3-O-β-D-glucosyl-D-galactosyl, 3-fucosyl-D-lactosyl, 3-fucosyl-2-acetamido-2-deoxy-4-O-β-D-galactosyl-D-glucosyl, L or D isomers thereof, α or β form thereof, pyranuronic or furanuronic form threreofthereof, pyranose or furanose form thereof, a disaccharide or a trisaccharide thereof, wherein X<sub>4</sub> is hydrogen, wherein X<sub>5</sub> and X<sub>6</sub> participates to-in a double bond between the carbon atoms in position 5 and 6, wherein X<sub>6</sub> is -H, wherein X<sub>7</sub> is selected from the group comprisingconsisting of glucosyl, fructosyl, galactosyl,mannosyl, fucosyl, isomaltosyl, maltosyl, cellobiosyl, gentiobiosyl, melibiosyl, palatinosyl, lactulosyl, 3-mannobiosyl, 6-mannobiosyl, 3-galactobiosyl, 4-galactobiosyl, maltotriosyl, maltotetraosyl, 2-amino-2-deoxy-glucosyl, 2-acetamido-2-deoxy-glucosyl, 2-amino-2-deoxy-galactosyl, 2-

acetamido-2-deoxy-galactosyl, 2-acetamido-2-deoxy-4-O- $\beta$ -D-galactosyl-D-glucosyl, 2-amino-2-deoxy-4-O- $\beta$ -D-galactosyl-D-glucosyl, 6'-N-acetylglucosaminyl lactosyl, 2-acetamido-2-deoxy-3-O- $\alpha$ -L-fucosyl-D-glucosyl, 6-O(2-acetamido-2-deoxy- $\beta$ -D-glucosyl)-D-galactosyl, 2-acetamido-2-deoxy-3-O- $\beta$ -D-galactosyl-D-glucosyl, 2'-acetamido-2'-deoxy-3-O- $\beta$ -D-glucosyl-D-galactosyl, 3-fucosyl-D-lactosyl, 3-fucosyl-2-acetamido-2-deoxy-4-O- $\beta$ -D-galactosyl-D-glucosyl, L or D isomers thereof,  $\alpha$  or  $\beta$  form thereof, pyranuronic or furanuronic form ~~thereeof~~ thereof, pyranose or furanose form thereof, a disaccharide or a trisaccharide thereof, wherein at least one of X<sub>3</sub> and X'<sub>3</sub> is a glycosyl moiety selected from the group consisting of glucosyl, fructosyl, galactosyl,mannosyl, ribosyl, ribulosyl, xylulosyl, erythrosyl, erythrulosyl, rhamnosyl, threosyl, sorbosyl, psicosyl, tagatosyl, fucosyl, arabinosyl, xylofuranosyl, lyxosyl, talosyl, psicosyl, idosyl, gulosyl, altrosyl, allosyl, mannoheptulosyl, sedoheptulosyl, abequosyl, isomaltosyl, kojibiosyl, laminaribiosyl, nigerosyl, primeverosyl, rutinosyl, tyvelosyl, maltosyl, lactosyl, sucrosyl, cellobiosyl, trehalosyl, gentiobiosyl, melibiosyl, turanosyl, sophorosyl, isosucrosyl, raffinosyl, palatinosyl, lactulosyl, gentianosyl, 3-mannobiosyl, 6-mannobiosyl, 3-galactobiosyl, 4-galactobiosyl, maltotriosyl, maltotetraosyl, isomaltotriosyl, maltopentaosyl, maltohexaosyl, maltoheptaosyl, sicosyl, panosyl, isopanosyl, inosyl, N-acetylgalactosaminyl, mannotriosyl, globotriosyl, erlosyl, neotrehalosyl, chitobiosyl, chitobiosemannosyl, glucosaminyl, N-acetyl-glucosaminyl, octylglucopyranosyl, octyrlribofuranosyl, cyclohexylglucopyranosyl, cyclohexylxylofuranosyl, benzylglucopyranosyl, benzylarabinofuranosyl, N-acetyl-lactosaminyl, acosaminyl, amicetosyl, amylosyl, apiosyl, arcanosyl, ascarylosyl, bacillosaminyl, boivinosyl, cellotriosyl, chacotriosyl, chalcosyl, cladinosyl, colitosyl, cymarosyl, daunosaminyl, desosaminyl, D-glycero-L-gulo-heptosyl, diginosyl, digitalosyl, digitoxosyl, evalosyl, evernitrosyl, forosaminyl, fucosaminyl, garosaminyl, hamamelosyl, isolevoglucosenonyl, kanosaminyl, kansosaminyl, lactosaminyl, lactosediaminyl, fucitolyl, maltulosyl, mannosaminyl, melezitosyl, mycaminosyl, mycarosyl, mycinosyl, mycosaminyl, noviosyl, oleandrosyl, paratosyl, perosaminyl, planteosyl, pneumosaminyl, purpurosaminyl, quinovosaminyl, quinovosyl, rhamnitolyl, rhamnosaminyl, rhodinosyl, rhodosaminyl, sarmentosyl, solatriosyl, stachyosyl, streptosyl, umbelliferosyl, trehalosaminyl, 1,6-anhydro-D-glucopyranosyl, 1-hydroxy- $\alpha$ -

D-allopyranosyl, 2,3:5,6-di-O-isopropylidene-D-mannofuranosyl, 2-amino-2-deoxy-D-galactitolyl, 2-deoxyribosyl, 2-deoxyglucosyl, 5-amino-5-deoxy-D-glucopyranosyl, 6-deoxy-D-galactitolyl, 2-amino-2-deoxy glucosyl, 2-acetamido-2-deoxy-glucosyl, 2-amino-2-deoxy galactosyl, 2-acetamido-2-deoxy-galactosyl, 2-amino-2-deoxy mannosyl, 2-acetamido-2-deoxy-mannosyl, 2-acetamido-2-deoxy-4-O- $\beta$ -D-galactosyl-D-glucosyl, 2-amino-2-deoxy-4-O- $\beta$ -D-galactosyl-D-glucosyl, 6'-N-acetylglucosaminyl lactosyl, 2-acetamido-2-deoxy-3-O- $\alpha$ -L-fucosyl-D-glucosyl, 6-O(2-acetamido-2-deoxy- $\beta$ -D-glucosyl)-D-galactosyl, 2-acetamido-2-deoxy-3-O- $\beta$ -D-galactosyl-D-glucosyl, 2'-acetamido-2'-deoxy-3-O- $\beta$ -D-glucosyl-D-galactosyl, 3-fucosyl-D-lactosyl, 3-fucosyl-2-acetamido-2-deoxy-4-O- $\beta$ -D-galactosyl-D-glucosyl, L or D isomers thereof,  $\alpha$  or  $\beta$  form thereof, pyranuronic or furanuronic form thereof, pyranose or furanose form thereof, combination thereof, deoxy derivatives thereof, hydroxyl-protected acetate or benzoyl derivatives thereof, amino derivatives thereof, amido derivatives thereof, thio derivatives thereof, di-, tri-, oligo- and polysaccharide thereof optionally substituted by one or more substituents independently selected from the group consisting of alkyl, aralkyl, aryl, Het<sup>1</sup>, Het<sup>2</sup>, cycloalkyl, alkyloxy, alkyloxycarbonyl, carboxyl, aminocarbonyl, mono- or di(alkyl)aminocarbonyl, aminosulfonyl, alkylS(=O)t, hydroxy, cyano, halogen or amino optionally mono- or disubstituted wherein the substituents are independently selected from the group consisting of alkyl, aryl, aralkyl, aryloxy, arylamino, arylthio, aryloxyalkyl, arylaminoalkyl, aralkoxy, alkylthio, alkoxy, aryloxyalkoxy, arylaminoalkoxy, aralkylamino, aryloxyalkylamino, arylaminoalkylamino, arylthioalkoxy, arylthioalkylamino, aralkylthio, aryloxyalkylthio, arylaminoalkylthio, arylthioalkylthio, alkylamino, cycloalkyl and cycloalkylalkyl as indicated above and wherein n is 0.

11. (Currently amended) A-The compound according to any of claims 1 to 4 claim 1, stereoisomers, tautomers, racemics, prodrugs, metabolites thereof, or a pharmaceutically acceptable salt and/or solvate thereof, wherein X<sub>1</sub> and X<sub>2</sub> are -OMe, wherein R<sub>1</sub> and R<sub>2</sub> are -H, wherein X<sub>3</sub> participates together with X'3 to-in an oxo functional group or are independently selected from the group comprisingconsisting of hydrogen, hydroxyl, alkyloxy, wherein X<sub>4</sub> is selected from the group comprisingconsisting of glucosyl, fructosyl, galactosyl, mannosyl, fucosyl, isomaltosyl,

Appl. No. : PCT/EP2004/014408  
Filed : December 17, 2004

maltosyl, cellobiosyl, gentiobiosyl, melibiosyl, palatinosyl, lactulosyl, 3-mannobiosyl, 6-mannobiosyl, 3-galactobiosyl, 4-galactobiosyl, maltotriosyl, maltotetraosyl, 2-amino-2-deoxy-glucosyl, 2-acetamido-2-deoxy-glucosyl, 2-amino-2-deoxy-galactosyl, 2-acetamido-2-deoxy-galactosyl, 2-acetamido-2-deoxy-4-O- $\beta$ -D-galactosyl-D-glucosyl, 2-amino-2-deoxy-4-O- $\beta$ -D-galactosyl-D-glucosyl, 6'-N-acetylglucosaminyl lactosyl, 2-acetamido-2-deoxy-3-O- $\alpha$ -L-fucosyl-D-glucosyl, 6-O(2-acetamido-2-deoxy- $\beta$ -D-glucosyl)-D-galactosyl, 2-acetamido-2-deoxy-3-O- $\beta$ -D-galactosyl-D-glucosyl, 2'-acetamido-2'-deoxy-3-O- $\beta$ -D-glucosyl-D-galactosyl, 3-fucosyl-D-lactosyl, 3-fucosyl-2-acetamido-2-deoxy-4-O- $\beta$ -D-galactosyl-D-glucosyl, L or D isomers thereof,  $\alpha$  or  $\beta$  form thereof, pyranuronic or furanuronic form ~~thereof~~, pyranose or furanose form thereof, a disaccharide or a trisaccharide thereof, wherein X<sub>5</sub> and X<sub>6</sub> participates ~~to-in~~ a double bond between the carbon atoms in position 4 and 5, wherein X<sub>6</sub> is -H, wherein X<sub>7</sub> is selected from the group ~~comprising~~consisting of glucosyl, fructosyl, galactosyl, mannosyl, fucosyl, isomaltosyl, maltosyl, cellobiosyl, gentiobiosyl, melibiosyl, palatinosyl, lactulosyl, 3-mannobiosyl, 6-mannobiosyl, 3-galactobiosyl, 4-galactobiosyl, maltotriosyl, maltotetraosyl, 2-amino-2-deoxy glucosyl, 2-acetamido-2-deoxy-glucosyl, 2-amino-2-deoxy-galactosyl, 2-acetamido-2-deoxy-galactosyl, 2-acetamido-2-deoxy-4-O- $\beta$ -D-galactosyl-D-glucosyl, 2-amino-2-deoxy-4-O- $\beta$ -D-galactosyl-D-glucosyl, 6'-N-acetylglucosaminyl lactosyl, 2-acetamido-2-deoxy-3-O- $\alpha$ -L-fucosyl-D-glucosyl, 6-O(2-acetamido-2-deoxy- $\beta$ -D-glucosyl)-D-galactosyl, 2-acetamido-2-deoxy-3-O- $\beta$ -D-glucosyl, 2'-acetamido-2'-deoxy-3-O- $\beta$ -D-glucosyl-D-galactosyl, 3-fucosyl-D-lactosyl, 3-fucosyl-2-acetamido-2-deoxy-4-O- $\beta$ -D-galactosyl-D-glucosyl, L or D isomers thereof,  $\alpha$  or  $\beta$  form thereof, pyranuronic or furanuronic form ~~thereof~~, pyranose or furanose form thereof, a disaccharide or a trisaccharide thereof, and wherein n is 0.

12. (Currently amended) A-The compound according to ~~any of claims 1 to 4~~claim 1, stereoisomers, tautomers, racemics, prodrugs, metabolites thereof, or a pharmaceutically acceptable salt and/or solvate thereof, wherein X<sub>1</sub> and X<sub>2</sub> are -OMe, wherein R<sub>1</sub> and R<sub>2</sub> are -H, wherein X<sub>3</sub> or X'<sub>3</sub> are independently selected from the group ~~comprising~~consisting of hydrogen, glucosyl, fructosyl, galactosyl, mannosyl, fucosyl,

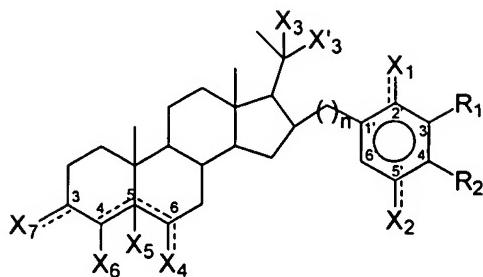
isomaltosyl, maltosyl, cellobiosyl, gentiobiosyl, melibiosyl, palatinosyl, lactulosyl, 3-mannobiosyl, 6-mannobiosyl, 3-galactobiosyl, 4-galactobiosyl, maltotriosyl, maltotetraosyl, 2-amino-2-deoxy-glucosyl, 2-acetamido-2-deoxy-glucosyl, 2-amino-2-deoxy-galactosyl, 2-acetamido-2-deoxy-galactosyl, 2-acetamido-2-deoxy-4-O-b-D-galactosyl-D-glucosyl, 2-amino-2-deoxy-4-O-b-D-galactosyl-D-glucosyl, 6'-N-acetylglucosaminyllectosyl, 2-acetamido-2-deoxy-3-O-a-L-fucosyl-D-glucosyl, 6-O(2-acetamido-2-deoxy-b-D-glucosyl)-D-galactosyl, 2-acetamido-2-deoxy-3-O-b-D-galactosyl-D-glucosyl, 2'-acetamido-2'-deoxy-3-O-b-D-glucosyl-D-galactosyl, 3-fucosyl-D-lactosyl, 3-fucosyl-2-acetamido-2-deoxy-4-O-b-D-galactosyl-D-glucosyl, L or D isomers thereof,  $\alpha$  or  $\beta$  form thereof, pyranuronic or furanuronic form ~~thereof~~ thereof, pyranose or furanose form thereof, a disaccharide or a trisaccharide thereof, wherein X<sub>4</sub> is selected from the group comprisingconsisting of glucosyl, fructosyl, galactosyl, mannosyl, fucosyl, isomaltosyl, maltosyl, cellobiosyl, gentiobiosyl, melibiosyl, palatinosyl, lactulosyl, 3-mannobiosyl, 6-mannobiosyl, 3-galactobiosyl, 4-galactobiosyl, maltotriosyl, maltotetraosyl, 2-amino-2-deoxy-glucosyl, 2-acetamido-2-deoxy-glucosyl, 2-amino-2-deoxy-galactosyl, 2-acetamido-2-deoxy-galactosyl, 2-acetamido-2-deoxy-4-O-b-D-galactosyl-D-glucosyl, 2-amino-2-deoxy-4-O-b-D-galactosyl-D-glucosyl, 6'-N-acetylglucosaminyllectosyl, 2-acetamido-2-deoxy-3-O-a-L-fucosyl-D-glucosyl, 6-O(2-acetamido-2-deoxy-b-D-glucosyl)-D-galactosyl, 2-acetamido-2-deoxy-3-O-b-D-galactosyl-D-glucosyl, 2'-acetamido-2'-deoxy-3-O-b-D-glucosyl-D-galactosyl, 3-fucosyl-D-lactosyl, 3-fucosyl-2-acetamido-2-deoxy-4-O-b-D-galactosyl-D-glucosyl, L or D isomers thereof,  $\alpha$  or  $\beta$  form thereof, pyranuronic or furanuronic form ~~thereof~~ thereof, pyranose or furanose form thereof, a disaccharide or a trisaccharide thereof, wherein X<sub>5</sub> and X<sub>6</sub> participates toin a double bond between the carbon atoms in position 4 and 5, wherein X<sub>6</sub> is -H, wherein X<sub>7</sub> is selected from the group comprisingconsisting of glucosyl, fructosyl, galactosyl, mannosyl, fucosyl, isomaltosyl, maltosyl, cellobiosyl, gentiobiosyl, melibiosyl, palatinosyl, lactulosyl, 3-mannobiosyl, 6-mannobiosyl, 3-galactobiosyl, 4-galactobiosyl, maltotriosyl, maltotetraosyl, 2-amino-2-deoxy glucosyl, 2-acetamido-2-deoxy-glucosyl, 2-amino-2-deoxy-galactosyl, 2-acetamido-2-deoxy-galactosyl, 2-acetamido-2-deoxy-4-O-b-D-galactosyl-D-glucosyl, 2-amino-2-deoxy-4-O-b-D-galactosyl-D-glucosyl, 6'-N-acetylglucosaminyllectosyl, 2-acetamido-2-deoxy-3-O-a-

L-fucosyl-D-glucosyl, 6-O(2-acetamido-2-deoxy-*b*-D-glucosyl)-D-galactosyl, 2-acetamido-2-deoxy-3-O-*b*-D-galactosyl-D-glucosyl, 2'-acetamido-2'-deoxy-3-O-*b*-D-glucosyl-D-galactosyl, 3-fucosyl-D-lactosyl, 3-fucosyl-2-acetamido-2-deoxy-4-O-*b*-D-galactosyl-D-glucosyl, L or D isomers thereof,  $\alpha$  or  $\beta$  form thereof, pyranuronic or furanuronic form ~~thereof~~ thereof, pyranose or furanose form thereof, a disaccharide or a trisaccharide thereof, wherein at least one of X<sub>3</sub> and X'<sub>3</sub> is a glycosyl moiety selected from the group consisting of glucosyl, fructosyl, galactosyl,mannosyl, ribosyl, ribulosyl, xylulosyl, erythrosyl, erythrulosyl, rhamnosyl, threosyl, sorbosyl, psicosyl, tagatosyl, fucosyl, arabinosyl, xylofuranosyl, lyxosyl, talosyl, psicosyl, idosyl, gulosyl, altrosyl, allosyl, mannoheptulosyl, sedoheptulosyl, abequosyl, isomaltosyl, kojibiosyl, laminaribiosyl, nigerosyl, primeverosyl, rutinosyl, tyvelosyl, maltosyl, lactosyl, sucrosyl, cellobiosyl, trehalosyl, gentiobiosyl, melibiosyl, turanosyl, sophorosyl, isosucrosyl, raffinosyl, palatinosyl, lactulosyl, gentianosyl, 3-mannobiosyl, 6-mannobiosyl, 3-galactobiosyl, 4-galactobiosyl, maltotriosyl, maltotetraosyl, isomaltotriosyl, maltopentaosyl, maltohexaosyl, maltoheptaosyl, sicosyl, panosyl, isopanosyl, inosyl, N-acetylgalactosaminyl, mannotriosyl, globotriosyl, erlosyl, neotrehalosyl, chitobiosyl, chitobiosemannosyl, glucosaminyl, N-acetyl-glucosaminyl, octylglucopyranosyl, octyribosyl, cyclohexylglucopyranosyl, cyclohexylxylofuranosyl, benzylglucopyranosyl, benzylarabinofuranosyl, N-acetyl-lactosaminyl, acosaminyl, amicetosyl, amylosyl, apiosyl, arcanosyl, ascarylosyl, bacillosaminyl, boivinosyl, cellotriosyl, chacotriosyl, chalcosyl, cladinosyl, colitosyl, cymarosyl, daunosaminyl, desosaminyl, D-glycero-L-gulo-heptosyl, diginosyl, digitalosyl, digitoxosyl, evalosyl, evernitrosyl, forosaminyl, fucosaminyl, garosaminyl, hamamelosyl, isolevoglucosenonyl, kanosaminyl, kansosaminyl, lactosaminyl, lactosediaminyl, fucitolyl, maltulosyl, mannosaminyl, melezitosyl, mycaminosyl, mycarosyl, mycinosyl, mycosaminyl, noviosyl, oleandrosyl, paratosyl, perosaminyl, planteosyl, pneumosaminyl, purpurosaminyl, quinovosaminyl, quinovosyl, rhamnitolyl, rhamnosaminyl, rhodinosyl, rhodosaminyl, sarmentosyl, solatriosyl, stachyosyl, streptosyl, umbelliferosyl, trehalosaminyl, 1,6-anhydro-D-glucopyranosyl, 1-hydroxy- $\alpha$ -D-allopyranosyl, 2,3:5,6-di-O-isopropylidene-D-mannofuranosyl, 2-amino-2-deoxy-D-galactitolyl, 2-deoxyribosyl, 2-deoxyglucosyl, 5-amino-5-deoxy-D-glucopyranosyl, 6-deoxy-D-galactitolyl, 2-amino-2-

deoxy glucosyl, 2-acetamido-2-deoxy-glucosyl, 2-amino-2-deoxy galactosyl, 2-acetamido-2-deoxy-galactosyl, 2-amino-2-deoxy mannosyl, 2-acetamido-2-deoxy-mannosyl, 2-acetamido-2-deoxy-4-O- $\beta$ -D-galactosyl-D-glucosyl, 2-amino-2-deoxy-4-O- $\beta$ -D-galactosyl-D-glucosyl, 6'-N-acetylglucosaminyllactosyl, 2-acetamido-2-deoxy-3-O- $\alpha$ -L-fucosyl-D-glucosyl, 6-O(2-acetamido-2-deoxy- $\beta$ -D-glucosyl)-D-galactosyl, 2-acetamido-2-deoxy-3-O- $\beta$ -D-galactosyl-D-glucosyl, 2'-acetamido-2'-deoxy-3-O- $\beta$ -D-glucosyl-D-galactosyl, 3-fucosyl-D-lactosyl, 3-fucosyl-2-acetamido-2-deoxy-4-O- $\beta$ -D-galactosyl-D-glucosyl, L or D isomers thereof,  $\alpha$  or  $\beta$  form thereof, pyranuronic or furanuronic form thereof, pyranose or furanose form thereof, combination thereof, deoxy derivatives thereof, hydroxyl-protected acetate or benzoyl derivatives thereof, amino derivatives thereof, amido derivatives thereof, thio derivatives thereof, di-, tri-, oligo- and polysaccharide thereof optionally substituted by one or more substituents independently selected from the group consisting of alkyl, aralkyl, aryl, Het<sup>1</sup>, Het<sup>2</sup>, cycloalkyl, alkyloxy, alkyloxycarbonyl, carboxyl, aminocarbonyl, mono- or di(alkyl)aminocarbonyl, aminosulfonyl, alkylS(=O)t, hydroxy, cyano, halogen or amino optionally mono- or disubstituted wherein the substituents are independently selected from the group consisting of alkyl, aryl, aralkyl, aryloxy, arylamino, arylthio, aryloxyalkyl, arylaminoalkyl, aralkoxy, alkylthio, alkoxy, aryloxyalkoxy, arylaminoalkoxy, aralkylamino, aryloxyalkylamino, arylaminoalkylamino, arylthioalkoxy, arylthioalkylamino, aralkylthio, aryloxyalkylthio, arylaminoalkylthio, arylthioalkylthio, alkylamino, cycloalkyl and cycloalkylalkyls indicated above and wherein n is 0.

13. (Currently amended) Compound-A compound of formula I, stereoisomers, tautomers, racemics, prodrugs, metabolites thereof, or a pharmaceutically acceptable salt and/or solvate thereof, wherein X<sub>1</sub>, X<sub>2</sub>, X<sub>3</sub>, X'<sub>3</sub>, X<sub>4</sub>, X<sub>5</sub>, X<sub>6</sub>, X<sub>7</sub>, R<sub>1</sub>, R<sub>2</sub> and n are selected as indicated in Table A.

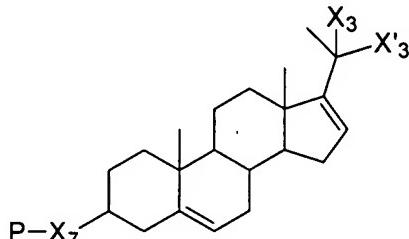
14. (Currently amended) Method-A method for synthesizing a compound havingcomprising the structural formula I



formula I

wherein X<sub>1</sub>, X<sub>2</sub>, X<sub>3</sub>, X<sub>4</sub>, X<sub>5</sub>, X<sub>6</sub>, X<sub>7</sub>, R<sub>1</sub>, R<sub>2</sub> and n are independently selected from the group as indicated in ~~any of claims 1 to 13~~ claim 1, said method comprising the steps of

- a) providing a starting material havingcomprising the structural formula IV,

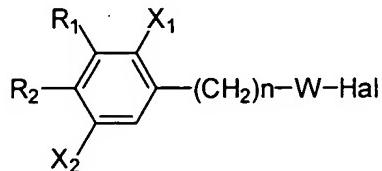


formula IV

wherein X<sub>3</sub> participates together with X'<sub>3</sub> ~~to-in~~ an oxo functional group, or wherein X<sub>3</sub> and X'<sub>3</sub> are independently selected from the group comprisingconsisting of hydrogen, hydroxyl, sulfur, oxyalkyl, oxycarbonyl, alkyl, Het<sup>1</sup>alkyl, alkyloxycarbonyl, alkenyl, alkynyl, aminoalkyl, aminoacyl, alkylcarbonylamino, alkylthiocarbonylamino, Het<sup>1</sup>, optionally substituted by one or more substituents independently selected from the group comprisingconsisting of alkyl, aralkyl, aryl, Het<sup>1</sup>, Het<sup>2</sup>, cycloalkyl, alkyloxy, alkyloxycarbonyl, carboxyl, aminocarbonyl, mono- or di(alkyl)aminocarbonyl, aminosulfonyl, alkylS(=O)t, hydroxy, cyano, halogen or amino optionally mono- or disubstituted wherein the substituents are independently selected from the group comprisingconsisting of alkyl, aryl, aralkyl, aryloxy, arylamino, arylthio, aryloxyalkyl, arylaminoalkyl, aralkoxy, alkylthio, alkoxy, aryloxyalkoxy, aylaminealkoxyarylaminoalkoxy, aralkylamino, aryloxyalkylamino, arylaminoalkylamino, arylthioalkoxy, arylthioalkylamino, aralkylthio, aryloxyalkylthio, arylaminoalkylthio, arylthioalkylthio, alkylamino, cycloalkyl and cycloalkylalkyl;

wherein X<sub>7</sub> is selected from the group comprisingconsisting of hydrogen, oxygen, halogen, oxo, carbonyl, thiocarbonyl, hydroxyl, alkyl, aryl, Het<sup>1</sup>, Het<sup>1</sup>alkyl, Het<sup>1</sup>aryl, alkenyl, alkynyl, hydroxyalkyl, hydroxycarbonyl, hydroxycarbonylalkyl, hydroxycarbonylaryl, hydroxycarbonyloxyalkyl optionally substituted by one or more substituents independently selected from the group comprisingconsisting of alkyl, aralkyl, aryl, Het<sup>1</sup>, Het<sup>2</sup>, cycloalkyl, alkyloxy, alkyloxycarbonyl, carboxyl, aminocarbonyl, mono- or di(alkyl)aminocarbonyl, aminosulfonyl, alkylS(=O)t, hydroxy, cyano, halogen or amino optionally mono- or disubstituted wherein the substituents are independently selected from the group comprisingconsisting of alkyl, aryl, aralkyl, aryloxy, arylamino, arylthio, aryloxyalkyl, arylaminoalkyl, aralkoxy, alkylthio, alkoxy, aryloxyalkoxy, aylamoalkoxyarylaminoalkoxy, aralkylamino, aryloxyalkylamino, arylaminoalkylamino, arylthioalkoxy, arylthioalkylamino, aralkylthio, aryloxyalkylthio, arylaminoalkylthio, arylthioalkylthio, alkylamino, cycloalkyl and cycloalkylalkyl; and wherein P is a protecting group,

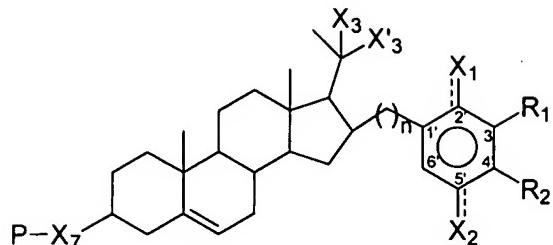
b) effecting reaction between the compound of step a) with an organometallic compound havingcomprising the structural formula V



formula V

wherein X<sub>1</sub>, X<sub>2</sub>, R<sub>1</sub>, R<sub>2</sub> and n are independently selected from the group as indicated in any of claims 1 to 13claim 1, wherein W is a metal or a combination of metals and wherein Hal is a halogen atom,

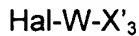
to result in an intermediate havingcomprising the structural formula III'



formula III'

wherein  $X_1$ ,  $X_2$ ,  $R_1$ ,  $R_2$  and  $n$  are independently selected from the group as indicated in any of claims 1 to 13, wherein  $X_3$ ,  $X'_3$ ,  $X_7$  are independently selected from the group as indicated in step a) and wherein P is a protecting group,

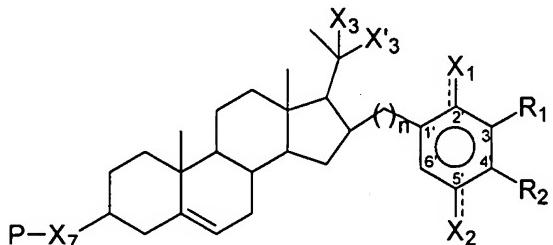
- c) effecting reaction between the compound of step b) with an organometallic compound havingcomprising the structural formula VI



formula VI

wherein  $X'_3$  is selected from the group as indicated in step a), wherein W is a metal or a combination of metals, and wherein Hal is a halogen atom,

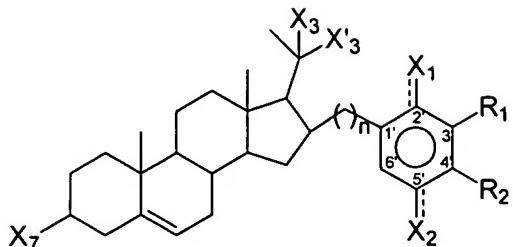
to result in an intermediate havingcomprising the structural formula III



formula III

wherein  $X_1$ ,  $X_2$ ,  $R_1$ ,  $R_2$  and  $n$  are independently selected from the group as indicated in any of claims 1 to 13claim 1, wherein  $X_3$ ,  $X'_3$ ,  $X_7$  are independently selected from the group as indicated in step a), wherein P is a protecting group,

- d) deprotecting the  $X_7$  group of the compound obtained in step c) to form an compound havingcomprising the structural formula II



formula II

wherein X<sub>1</sub>, X<sub>2</sub>, R<sub>1</sub>, R<sub>2</sub> and n are independently selected from the group as indicated in ~~any of claims 1 to 13~~claim 1, wherein X<sub>3</sub>, X'<sub>3</sub>, X<sub>7</sub> are independently selected from the group as indicated in step a), and

e) coupling an O-protected glycosyl or non-protected glycosyl to form a compound of formula IIB wherein X<sub>1</sub>, X<sub>2</sub>, R<sub>1</sub>, R<sub>2</sub> and n are independently selected from the group as indicated in ~~any of claims 1 to 13~~claim 1, wherein X<sub>3</sub> and X'<sub>3</sub> are independently selected from the group as indicated in step a), and X<sub>7</sub> is an O-protected glycosyl or a non-protected glycosyl, and

f) deprotecting the O-protected groups of glycosyl to form a compound of formula IB wherein X<sub>1</sub>, X<sub>2</sub>, X<sub>4</sub>, X<sub>5</sub>, X<sub>6</sub>, R<sub>1</sub>, R<sub>2</sub> and n are independently selected from the group as indicated in ~~any of claims 1 to 13~~claim 1, wherein X<sub>3</sub>, X'<sub>3</sub> are independently selected from the group as indicated in step a), and X<sub>7</sub> is selected from the group ~~comprising~~consisting of glycosyl, thio derivatives thereof, amino derivatives thereof, amido derivatives thereof, hydroxyl-protected derivatives thereof.

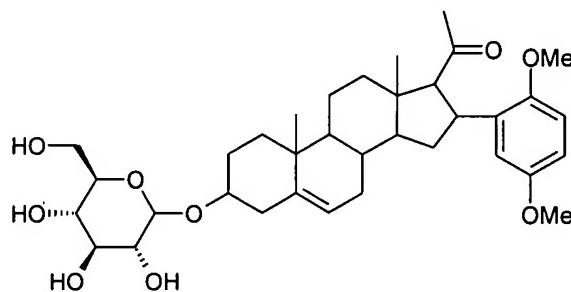
15.(Currently amended) ~~Method~~The method according to claim 14, wherein step e) consists of reacting the compound of step d) with an oxidizing reagent to form an intermediate and reducing said intermediate with a reducing reagent to result in another intermediate ~~having~~comprising the structural formula I where ~~X<sub>1</sub>, X<sub>2</sub>, R<sub>1</sub>, R<sub>2</sub> and n are independently selected from the group as indicated in any of claims 1 to 13, and X<sub>3</sub> or X'<sub>3</sub>, and X<sub>4</sub> and X<sub>7</sub> are hydroxyl~~ and continuing the reaction with steps e) and f) according to claim 14 to form a glycosylated steroid compound of structural formula I.

16. (Currently amended) ~~Method~~The method according to claim 14, wherein step c) consists of reacting the compound of step b) with an O-protected glycosyl or non-

protected glycosyl to result in an intermediate ~~having comprising~~ the structural formula III wherein  $X_1$ ,  $X_2$ ,  $R_1$ ,  $R_2$  and  $n$  are independently selected from the group as indicated in any of claims 1 to 13, wherein  $X_3$ ,  $X_7$  are independently selected from the group as indicated in step a) of claim 14, wherein  $P$  is a protecting group, and wherein  $X_3$  or  $X'_3$  is an O-protected glycosyl or a non-protected glycosyl and continuing the reaction with steps d), e) and f) according to claim 14 to form a glycosylated steroid compound of structural formula I.

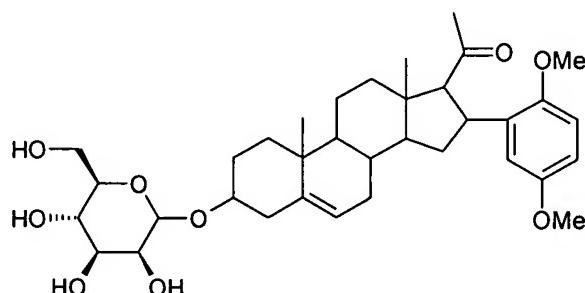
17. (Currently amended) A compound obtainable by any of the steps according to the method of ~~any of claims 14 to 16~~ claim 14.

18. (Currently amended) A ~~The~~ compound according to claim 1, of structural formula:



herein designated as compound **UBS3268**

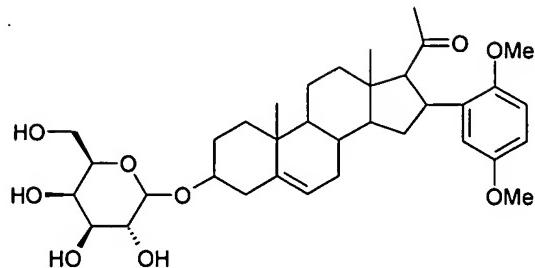
19. (Currently amended) A ~~The~~ compound according to claim 1, of structural formula:



herein designated as compound **UBS3270**

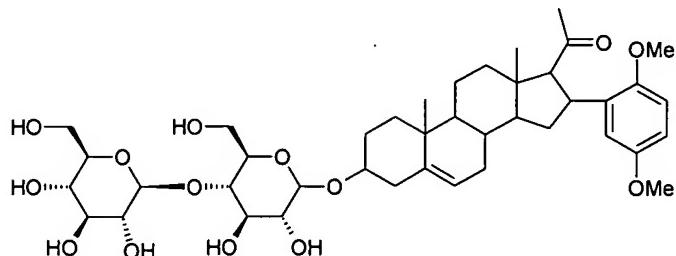
20. (Currently amended) A ~~The~~ compound according to claim 1, of structural formula:

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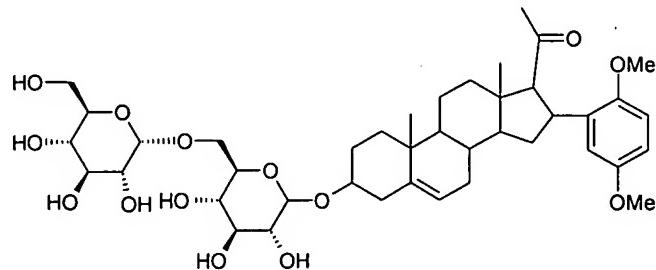
herein designated as compound **UBS3285**

21. (Currently amended) A-The compound according to claim 1, of structural formula:



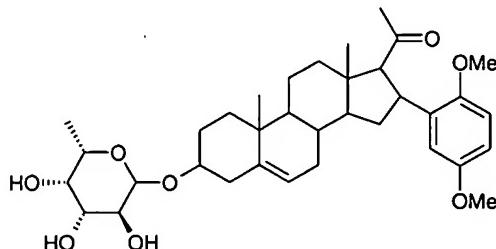
herein designated as compound **UBS3327**

22. (Currently amended) A-The compound according to claim 1, of structural formula:



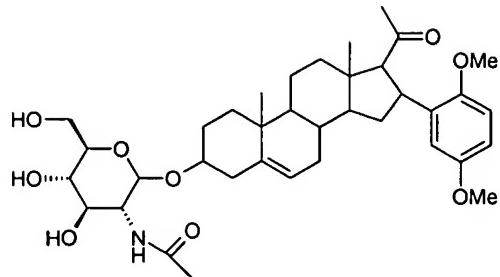
herein designated as compound **UBS3328**

23. (Currently amended) A-The compound according to claim 1, of structural formula:



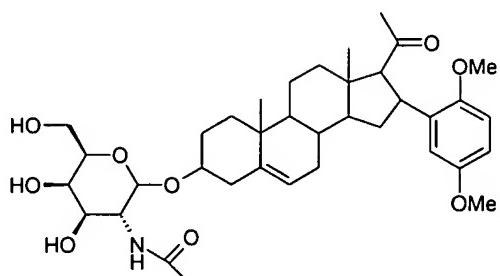
herein designated as compound **UBS3501**

24. (Currently amended) A-The compound according to claim 1, of structural formula:



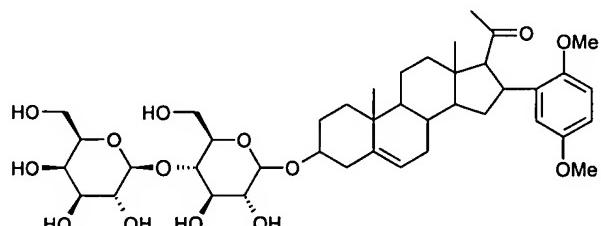
herein designated as compound **UBS3585**

25. (Currently amended) A-The compound according to claim 1, of structural formula:



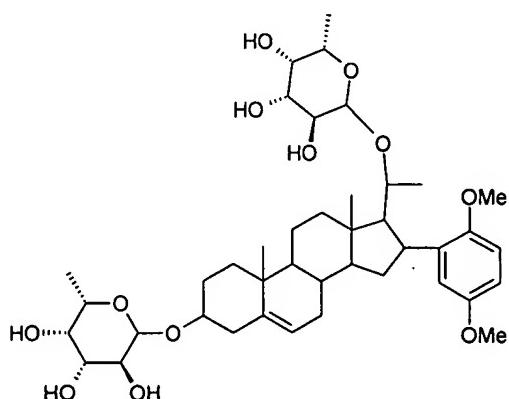
herein designated as compound **UBS3597**

26. (Currently amended) A-The compound according to claim 1, of structural formula:



herein designated as compound **UBS3976**

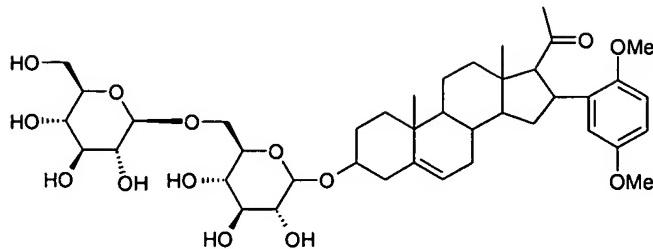
27. (Currently amended) A-The compound according to claim 1, of structural formula:



herein designated as compound **UBS4066**

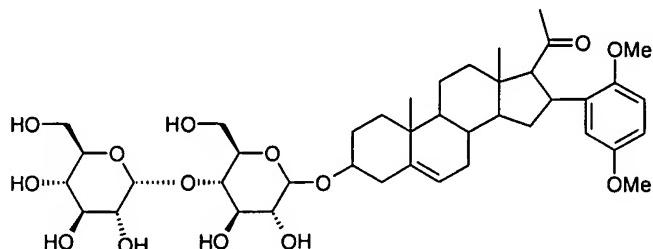
28. (Currently amended) A-The compound according to claim 1, of structural formula:

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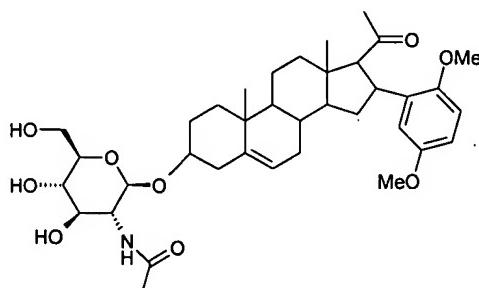
herein designated as compound **UBS4067**

29. (Currently amended) A the compound according to claim 1, of structural formula:



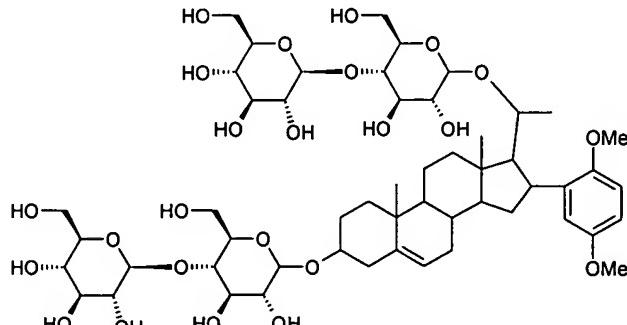
herein designated as compound **UBS4095**

30. (Currently amended) A-The compound according to claim 1, of structural formula:



herein designated as compound UBS4104

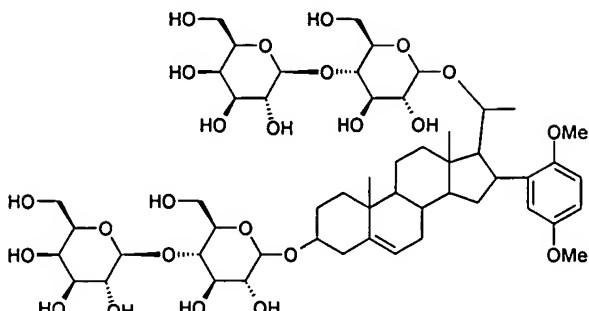
31. (Currently amended) A-The compound according to claim 1, of structural formula:



herein designated as compound **UBS4109**

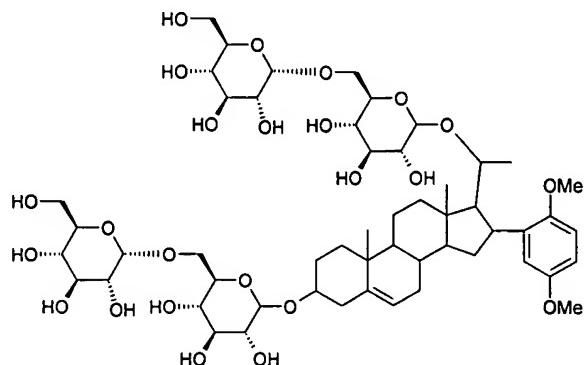
32. (Currently amended) A-The compound according to claim 1, of structural formula:

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herein designated as compound **UBS4209**

33. (Currently amended) A The compound according to claim 1, of structural formula:



herein designated as compound **UBS4373**

34. (Cancelled)

35. (Cancelled)

36. (Currently amended) Use ofA method for treating cancer which comprises administering a compound according to any of claims 1 to 13 and 17 to 33claim 1 to an individual in need thereof for the preparation of a medicament for treating cancer.

37. (Currently amended) A pharmaceutical composition comprising a pharmaceutically acceptable excipient and a therapeutically effective amount of a compound according to any of claims 1 to 13 and 17 to 33claim 1.

38. (Cancelled)

39. (Currently amended) Method-A method of treating cancer comprising administrating to an individual in need of such treatment a pharmaceutical composition according to claim 37.